DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	1	50
		HWY. 5 EROSION REPAIR (GARLAND CO.) (S)				

"A FULLY CONTROLLED ACCESS FACILITY"
ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

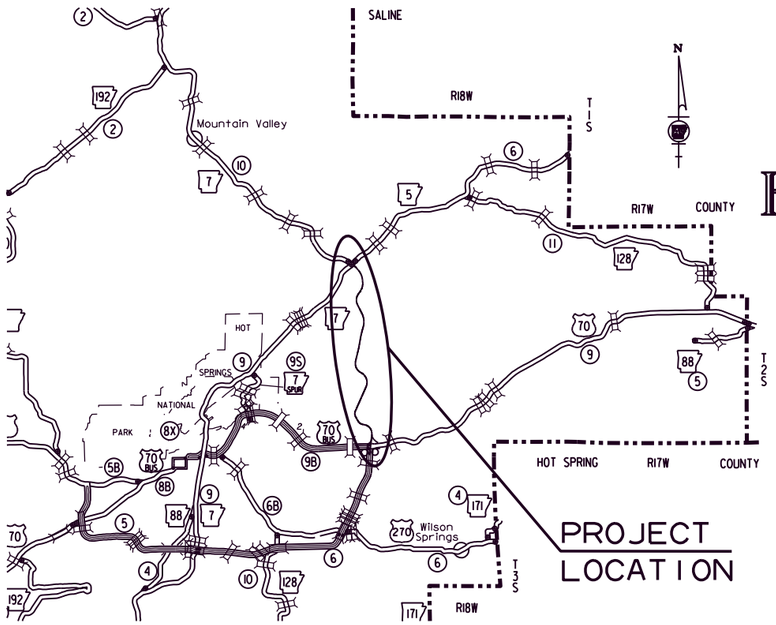
HWY. 5 EROSION REPAIR (GARLAND CO.) (S)

GARLAND COUNTY

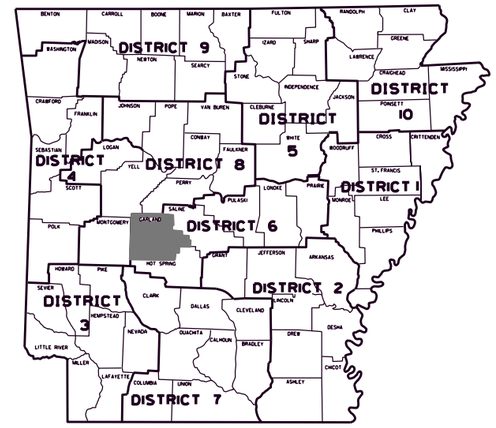
ROUTE 5 SECTION 5

JOB 061855

FED. AID PROJ.
PRTT-0026(53)

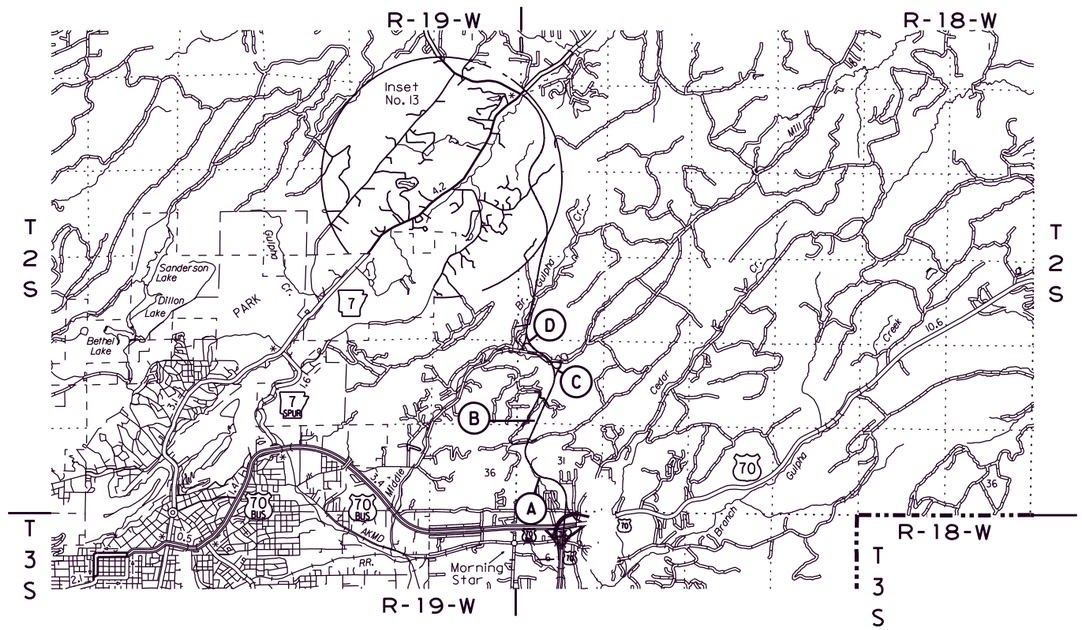


VICINITY MAP



ARK. HWY. DIST. NO. 6

NOT TO SCALE



NO LENGTH INVOLVED WITH PROJECT

NO LENGTH INVOLVED WITH PROJECT

APPROVED

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14276
JARED D. WILEY

CHIEF ENGINEER - PRECONSTRUCTION

rb43088 7/23/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	2	50

INDEX OF SHEETS, STANDARD DRAWINGS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES

INDEX OF SHEETS

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-1	WIRE FENCE TYPE A AND B	08-22-02

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
7. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
102-3	PREQUALIFICATION OF BIDDERS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
210-1	UNCLASSIFIED EXCAVATION
306-1	QUALITY CONTROL AND ACCEPTANCE
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
620-1	MULCH COVER
802-4	CEMENT
JOB 061855	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061855	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 061855	CARGO PREFERENCE ACT REQUIREMENTS
JOB 061855	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 061855	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 061855	FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT
JOB 061855	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 061855	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 061855	MANDATORY ELECTRONIC CONTRACT
JOB 061855	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061855	NESTING SITES OF MIGRATORY BIRDS
JOB 061855	PRE-BID ON SITE INVESTIGATION OF SOIL CONDITIONS
JOB 061855	PRICE ADJUSTMENT FOR FUEL
JOB 061855	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 061855	RIPRAP BASIN
JOB 061855	SOIL STABILIZATION
JOB 061855	SPECIAL SEEDING REQUIREMENTS
JOB 061855	STREAM VANES AND RIPRAP FOR CHANNEL RESTORATION
JOB 061855	TIED CONCRETE BLOCK MATS
JOB 061855	UTILITY ADJUSTMENTS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

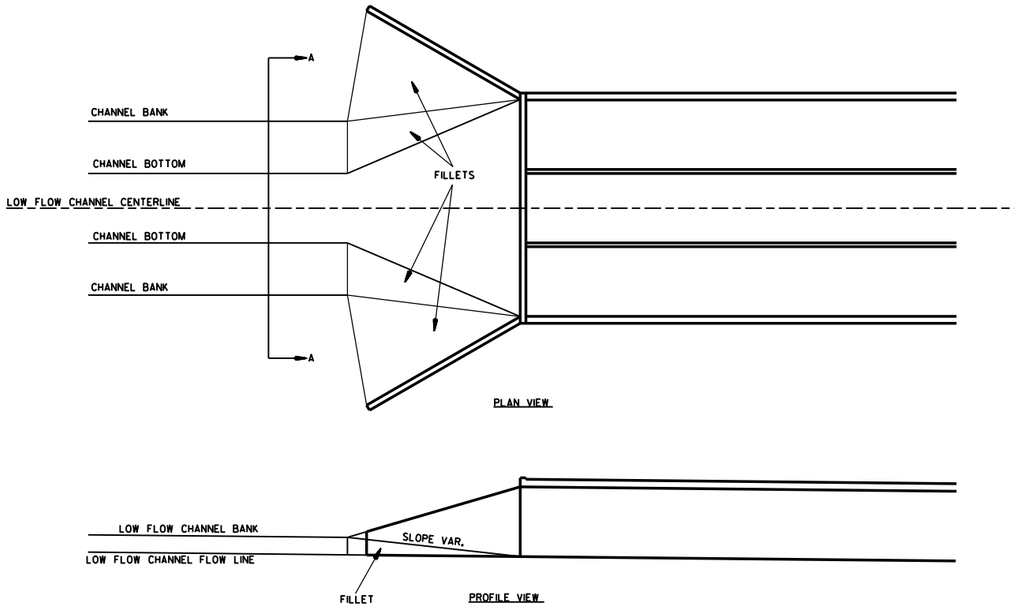
Digitally signed by Trinity Smith
Date: 2024.06.26 10:35:27-05'00'

rb43088 6/24/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	3	50
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

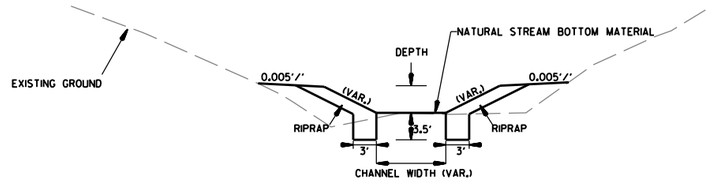
06-26-2024



LOW FLOW CHANNEL FILLET DETAILS

FOR DIMENSIONS OF STRUCTURE REFER TO STRUCTURE DETAILS, PLANS AND STANDARD DRAWINGS.

THE LOW FLOW CHANNEL DIMENSIONS ARE SHOWN ON THE PLAN SHEETS. THE BOTTOM OF THE LOW FLOW CHANNEL SHOULD LINE UP WITH THE BARREL SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE FILLET SLOPE SHOULD INTERSECT THE END OF THE WING WALL AND NOT COVER THE END OF THE WING WALL.



CHANNEL TYPICAL SECTION SECTION A-A

FILLET INSTALLATION LOCATIONS

STA.	STA.	LOCATION	
736+89	737+20	SITE C-3	MILL CREEK ROAD RAMP 2 RT
741+29	741+94	SITE C-1	MAIN LANES LT
741+77	742+36	SITE C-2	MAIN LANES RT
115+79	116+74	SITE C-2	MILL CREEK ROAD RT
117+67	118+64	SITE C-2	MILL CREEK ROAD RT
767+04	767+91	SITE D-2	MAIN LANES LT
769+19	770+20	SITE D-3	MAIN LANES RT
106+70	107+58	SITE D-3	DENISE LANE RT

THE FILL BEYOND THE RIP RAP SLOPES SHOWN IN THE SPECIAL DETAIL SHOULD BE COMPACTED EMBANKMENT IN THE LOWER LAYERS. THE TOP LAYER SHOULD BE THE LOCAL MATERIAL AND CAN BE A MIX OF SOIL AND ROCK EXCAVATED FROM THE STREAM BED.

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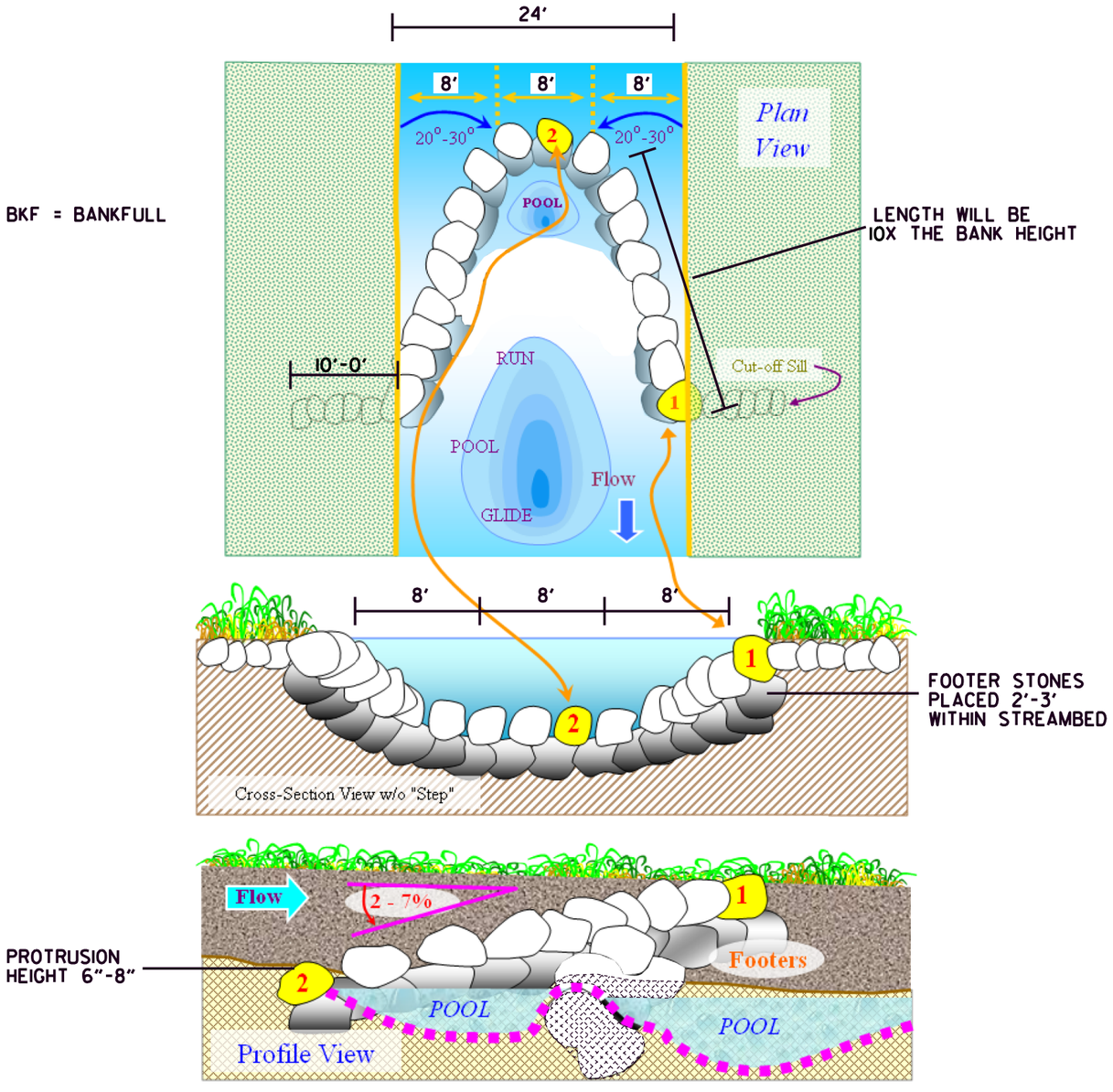
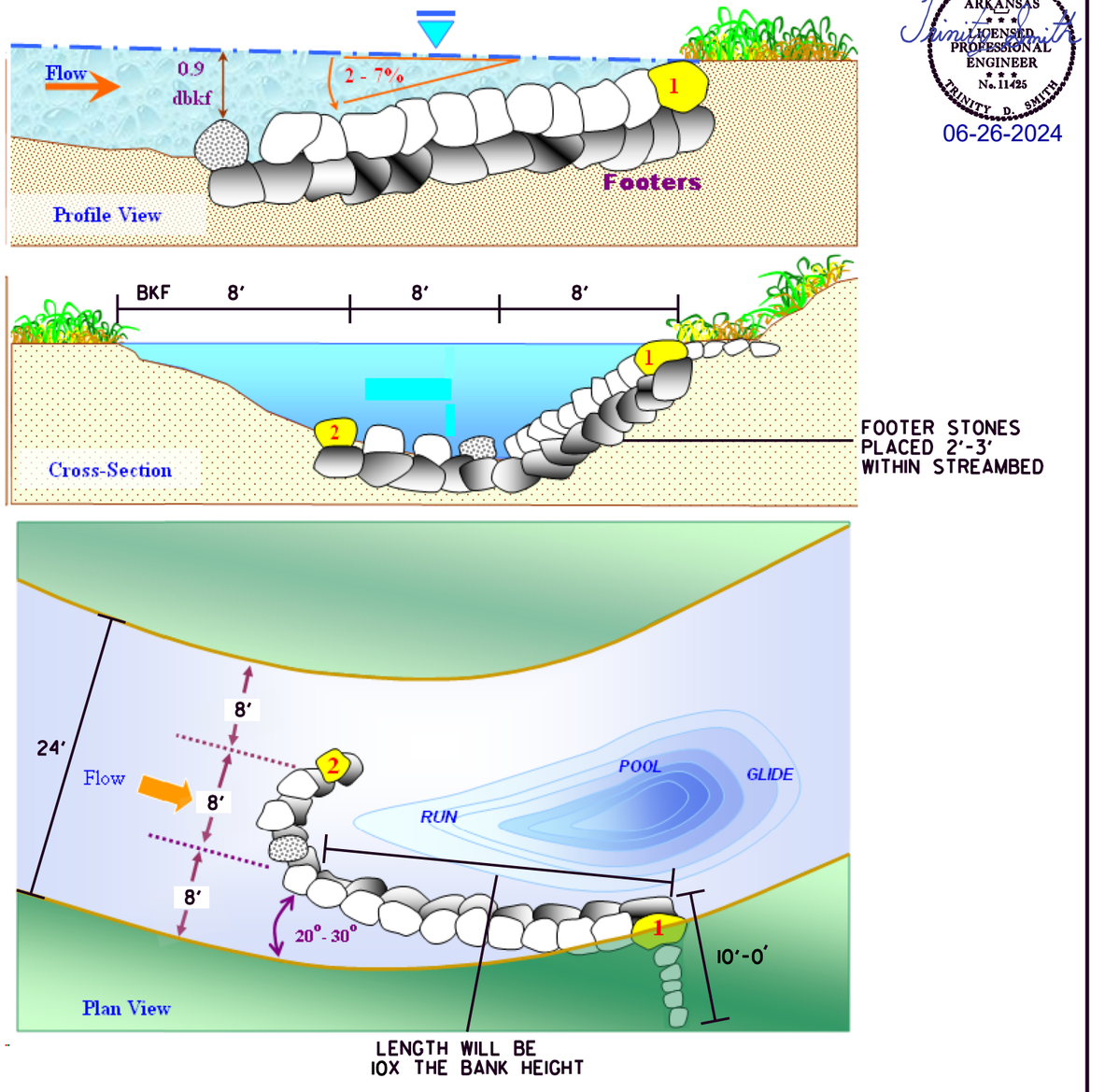
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	4	50
		SPECIAL DETAILS				

BKF = BANKFULL



CROSS VANE DETAILS (E-C)



J HOOK VANE DETAILS (E-J)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

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SPECIAL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	5	50
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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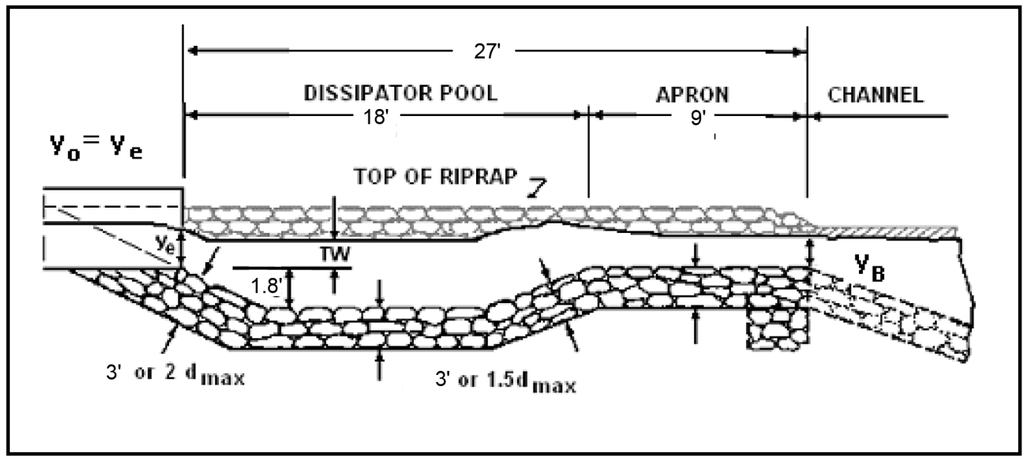
TRINITY D. SMITH

06-26-2024

- The basin is pre-shaped and lined with riprap that is at least 3' thick.
- The riprap floor is constructed at the approximate depth of scour, 1.8', that would occur in a thick pad of riprap. The h_s/D_{50} of the material should be greater than 2.
- The length of the energy dissipating pool is 18'; the length of the apron is 9'. The overall length of the basin (pool plus apron) is 27'.
- A riprap cutoff wall or sloping apron can be constructed if downstream channel degradation is anticipated as shown in the Riprap Basin Detail.



RIPRAP BASIN DETAILS

SITE A - STA. 664+67 - STA. 664+95 LT

rb43088 4/11/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	6	50
		EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED
PROFESSIONAL
ENGINEER
No. 11425
TRINITY D. SMITH

LEGEND

= SPECIAL SEEDING

SEE DETAIL "A"

DETAIL "A"

RIPRAP BASIN
LB = 27'
LS = 18'
LA = 9'
hS = 1.8'
D50 = 1.0'

V-BOTTOM CHANNEL
3' - 3½' DEPTH
3:1 LT AND RT SIDE SLOPES

THED. CONCRETE BLOCK MAT

655
675
685
695
999

REVISIONS

DATE OF REVISION	REVISION

SITE A MAIN LANES
EROSION CONTROL DETAILS

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R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	7	50
		EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
07-25-2024

PROMISED LAND DRIVE

PROMISED LAND DRIVE

SEE DETAIL "B"

DETAIL "B"

TIED CONCRETE BLOCK MAT

EXACT LOCATION OF TIED CONCRETE BLOCK MAT IS TO BE DETERMINED BY THE ENGINEER

690

700

705

710

715

689

V-BOTTOM CHANNEL
3' DEPTH
3:1 LT AND RT SIDE SLOPES

TIED CONCRETE BLOCK MAT

FLAT BOTTOM CHANNEL
6' BOTTOM WIDTH
3' DEPTH
3:1 LT & RT SIDE SLOPES

MODIFICATION OF CURTAIN WALL

710

LEGEND

= SPECIAL SEEDING

REVISIONS

DATE OF REVISION	REVISION

SITE B MAIN LANES
EROSION CONTROL DETAILS

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R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	8	50
		EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
07-25-2024

PROMISED LAND DRIVE
COVENANT TRAIL
MILL CREEK ROAD
MILL CREEK ROAD RAMP 1
MILL CREEK ROAD RAMP 2

DETAIL "C-1"
CHANNEL CHANGE
12' BOTTOM WIDTH
3' DEPTH
2:1 LT & 3:1 RT SIDE SLOPES
FILLET

DETAIL "C-2"
CHANNEL CHANGE
24' BOTTOM WIDTH
3' DEPTH
3:1 LT & RT SIDE SLOPES
FILLET
FILLET

DETAIL "C-3"
V-BOTTOM CHANNEL
3' DEPTH
3:1 LT AND RT SIDE SLOPES
FILLET

SEE DETAIL "C-1"
SEE DETAIL "C-2"
SEE DETAIL "C-3"

LEGEND

E-C	= CROSS VANE
E-J	= J-HOOK VANE

EXACT LOCATIONS OF E-C AND E-J ARE TO BE DETERMINED IN THE FIELD

REVISIONS

DATE OF REVISION	REVISION

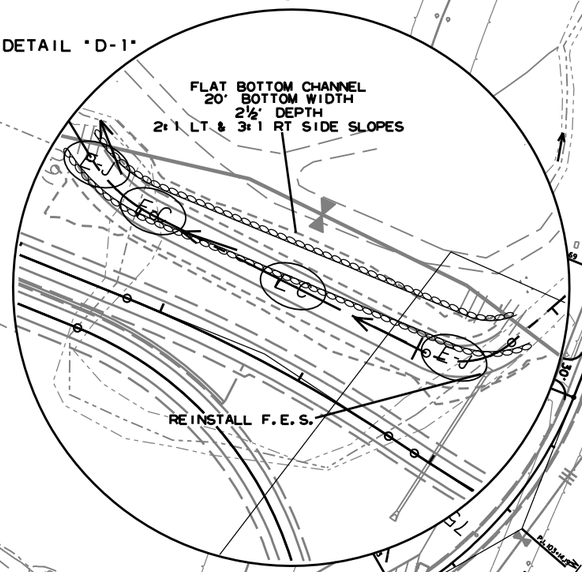
SITE C MAIN LANES EROSION CONTROL DETAILS

rb43088 7/24/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	9	50
		EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
07-25-2024

DETAIL "D-1"



SEE DETAIL "D-1"

SEE DETAIL "D-2"

SEE DETAIL "D-3"

16' GATE

DENISE LANE

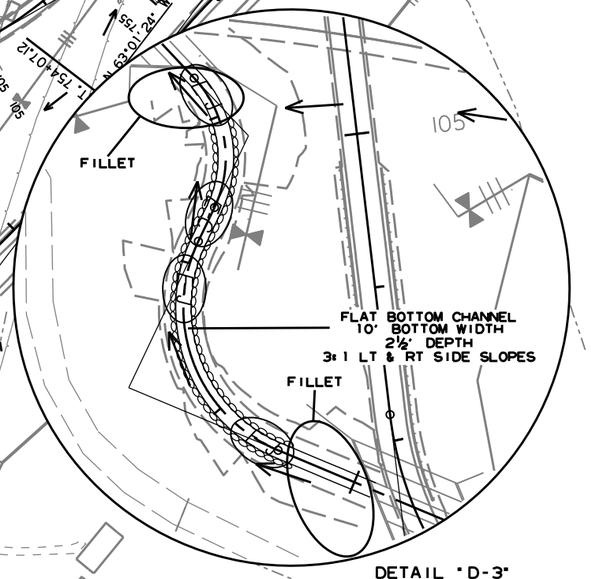
MILL CREEK ROAD RAMP 3

MILL CREEK ROAD RAMP 4

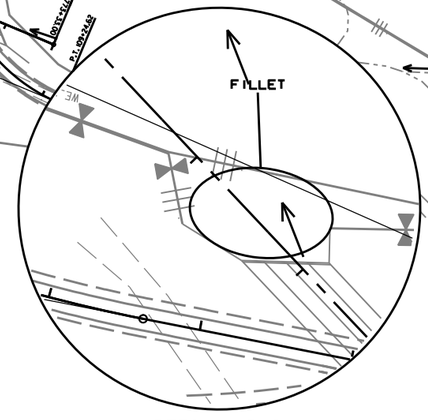
MILL CREEK ROAD

I-30

DETAIL "D-3"



DETAIL "D-2"



LEGEND

E-C	= CROSS VANE
E-J	= J-HOOK VANE

EXACT LOCATIONS OF E-C AND E-J ARE TO BE DETERMINED IN THE FIELD

REVISIONS

DATE OF REVISION	REVISION

SITE D MAIN LANES
EROSION CONTROL DETAILS

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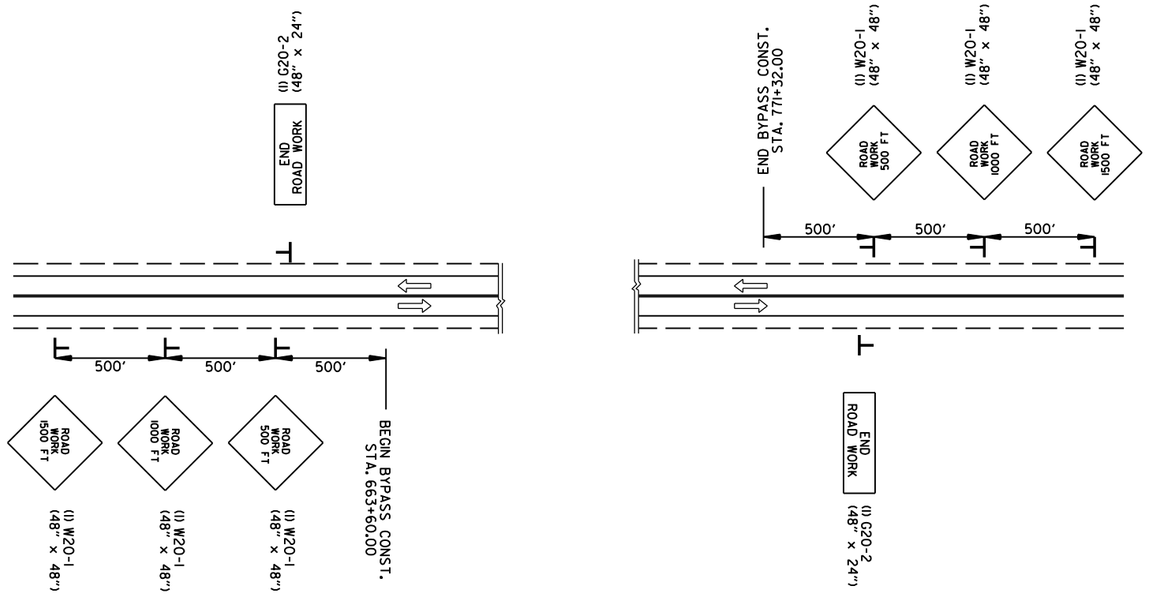
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	10	50
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

06-26-2024



ADVANCE WARNING
(ALL STAGES)

DO NOT PASS	(4) R4-1 (24" X 30")	ALL STAGES SPACED AT 1/4 MILE INTERVALS
RIGHT SHOULDER CLOSED	(4) W21-5a (36" x 36")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

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R061855.DGN

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	11	50
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
07-25-2024

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED	
			LIN. FT. - EACH		NO.	SQ. FT.
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	32.0
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	32.0
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	32.0
G20-2	END ROAD WORK	48"x24"	2	2	2	16.0
TOTALS:						112.0

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			ACRE	
664+67	670+02	SITE A MAIN LANES LT	1.2	1.2
709+44	713+80	SITE B MAIN LANES LT	0.6	0.6
739+87	741+80	SITE C MAIN LANES LT	0.2	0.2
739+81	743+46	SITE C MAIN LANES RT	0.9	0.9
760+04	763+14	SITE D MILL CREEK ROAD RAMP 3 LT	0.4	0.4
767+04	767+91	SITE D MAIN LANES LT	0.1	0.1
769+50	771+35	SITE D MAIN LANES RT	0.4	0.4
TOTALS:			3.8	3.8

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
709+50	716+00	SITE B MAIN LANES LT	660
768+26	768+42	SITE D-3 MAIN LANES RT	16
TOTALS:			676

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE A)	* 16'-0" GATES
			LIN. FT.	EACH
709+50	716+00	SITE B MAIN LANES LT	803	
768+26	768+42	SITE D-3 MAIN LANES RT		1
TOTALS:			803	1

* DENOTES ALTERNATE BID ITEM.

TIED CONCRETE BLOCK MATS

STATION	STATION	LOCATION	LENGTH	Width of Top	Width of Bottom	TIED CONCRETE BLOCK MATS (TCBM)	
						FLAT-BOTTOM	V-BOTTOM
			LIN. FT.	FEET	FEET	SQ. YD.	SQ. YD.
664+79	670+00	SITE A MAIN LANES LT DITCH	521.00	24.00			1389.33
709+44	711+00	SITE B MAIN LANES LT DITCH	156.00	18.00			312.00
711+00	713+76	SITE B MAIN LANES LT DITCH	276.00	24.00	6.00	736.00	
TOTALS:						736.00	1701.33

FLOWABLE SELECT MATERIAL

STATION	LOCATION	CU. YD.
741+69	SITE C-1 MAIN LANES LT	50
TOTAL:		50

EROSION CONTROL

STATION	STATION	LOCATION	EROSION CONTROL					
			SPECIAL SEEDING	SEEDING	MULCH COVER	WATER	CROSS VANE (E-C)	J-HOOK VANE (E-J)
			ACRE	ACRE	ACRE	M.GAL.	TON	TON
ENTIRE	PROJECT	SLOPE STABILIZATION	8.23		8.23	167.9		
ENTIRE	PROJECT	CHANNEL REPAIR		3.76	3.76	76.7		
739+90	741+80	SITE C-1 MAIN LANES - 3' DIAMETER ROCK					38.4	28.8
741+95	743+41	SITE C-2 MAIN LANES - 3' DIAMETER ROCK					36.0	31.7
760+10	763+05	SITE D-1 MILL CREEK ROAD RAMP 3 - 3' DIAMETER ROCK					50.4	37.9
104+45	107+26	SITE D-3 DENISE LANE - 3' DIAMETER ROCK					17.8	39.8
TOTALS:			8.23	3.76	11.99	244.6	143	138

BASIS OF ESTIMATE:
WATER.....20.4 M.G. / ACRE OF SPECIAL SEEDING
WATER.....20.4 M.G. / ACRE OF SEEDING

DUMPED RIPRAP AND FILTER BLANKET

STATION	STATION	LOCATION	DUMPED RIPRAP	RIPRAP BASIN	FILTER BLANKET
			CU. YD.	EACH	SQ. YD.
664+79		SITE A MAIN LANES LT.		1	72
741+29	741+94	SITE C-1 MAIN LANES LT.	222		443
741+77	742+36	SITE C-2 MAIN LANES RT.	280		560
736+90	737+20	SITE C-3 C-1 MILL CREEK ROAD RAMP 2 RT.	420		840
767+04	767+91	SITE D-1 MILLS CREEK ROAD RAMP 3 LT.	350		700
767+04	767+91	SITE D-2 MAIN LANES LT.	151		302
769+19	770+20	SITE D-3 MAIN LANES RT.	364		728
TOTALS:			1787	1	3645

*NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

SEE SPECIAL DETAIL ON SHEET 3 FOR RIPRAP SITES

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

rb43088 7/24/2024
R061855.DGN

QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	12	50
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

07-25-2024

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
664+67.00	670+00.00	SITE A MAIN LANES SLOPE CORRECTION	1283	116
709+54.00	713+44.00	SITE B MAIN LANES SLOPE CORRECTION	1286	337
739+81.00	743+47.00	SITE C MAIN LANES CHANNEL CHANGE	1546	3047
760+10.00	763+05.00	SITE D-1 MILL CREEK ROAD RAMP 3 CHANNEL CHANGE	394	965
104+45.00	107+26.00	SITE D-3 DENISE LANE CHANNEL CHANGE	8	1847
TOTALS:			**4517**	**6312**

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTITY.

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE	100
		DIRECTED BY THE ENGINEER	
TOTAL:			**100**

QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

STRUCTURES

STATION	DESCRIPTION	FLARED END SECTIONS FOR R.C. PIPE CULVERTS		STD. DWG. NOS.
		24"	48"	
		EACH		
709+53	MODIFY CURTAIN WALL - SITE B		1	FES-1, FES-2
763+00	REINSTALL F.E.S. ON LT, SITE D-1 MILL CREEK ROAD RAMP 3	1		FES-1, FES-2
TOTALS:		**1**	**1**	

rb43088 7/24/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	13	50
		SUMMARY OF QUANTITIES AND REVISIONS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

07-25-2024

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
201	CLEARING	4	ACRE
201	GRUBBING	4	ACRE
202	REMOVAL AND DISPOSAL OF FENCE	676	LIN. FT.
SS & 206	FLOWABLE SELECT MATERIAL	50	CU. YD.
SP, SS, & 210	UNCLASSIFIED EXCAVATION	4517	CU. YD.
SP & 210	COMPACTED EMBANKMENT	6312	CU. YD.
SP & 210	SOIL STABILIZATION	100	TON
601	MOBILIZATION	1.00	LUMP SUM
SS & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	112	SQ. FT.
SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
SS & 606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
SS & 619	WIRE FENCE (TYPE A)	803	LIN. FT.
* SS & 619	16' STEEL GATES (ALTERNATE NO. 1)	1	EACH
* SS & 619	16' ALUMINUM GATES (ALTERNATE NO. 2)	1	EACH
620	SEEDING	3.76	ACRE
SP & 620	SPECIAL SEEDING	8.23	ACRE
SS & 620	MULCH COVER	11.99	ACRE
620	WATER	244.6	M. GAL.
SP	CROSS VANE	143	TON
SP	J-HOOK VANE	138	TON
SS & 816	FILTER BLANKET	3645	SQ. YD.
SP	RIPRAP BASIN	1	EACH
SP	TIED CONCRETE BLOCK MAT	2437	SQ. YD.
SP, SS, & 816	DUMPED RIPRAP	1787	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
7/24/2024	REVISED TITLE SHEET TO REMOVE ALL LENGTH FROM PROJECT. REVISED EROSION CONTROL SHEETS. REVISED EROSION CONTROL AND EARTHWORK QUANTITIES. REVISED THE PLAN AND PROFILE AND CROSS SECTION SHEETS FOR SITE A.	1, 6-9, 11-13, 24, 26-31

rb43088 7/24/2024
R061855.DGN

SURVEY CONTROL COORDINATES

Project Name: sr60140.alg
Date: 7/18/2018
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	1983930.8777	1018752.1237	492.025	CTL	REBAR•CAP
2	1983873.0064	1019283.6359	470.297	CTL	REBAR•CAP
3	1984448.0317	1018257.2460	549.733	CTL	CPS
4	1984995.6044	1018224.5203	569.442	CTL	REBAR•CAP
5	1985356.3525	1017260.2293	587.137	CTL	T-5 RBC
6	1985601.9765	1017257.9959	590.336	CTL	T-6 RBC
7	1986637.3855	1015636.2349	735.956	CTL	REBAR•CAP
8	1986832.9765	1015949.4908	749.034	CTL	REBAR•CAP
9	1988253.4883	1016330.1904	925.110	CTL	REBAR•CAP FILE REOPENED
10	1988275.8628	1016797.5031	904.587	CTL	REBAR•CAP FILE REOPENED
11	1990240.4124	1018401.9691	641.585	CTL	REBAR•CAP
12	1990096.2695	1018682.1381	666.765	CTL	REBAR•CAP FILE REOPENED
13	1993040.8396	1018416.0701	553.746	CTL	REBAR•CAP
14	1992926.8279	1019133.7524	573.734	CTL	REBAR•CAP
15	1994007.6802	1016553.8199	537.501	CTL	REBAR•CAP PN:15 WAS UPDATED IN 2018
16	1994390.3484	1016241.1815	537.585	CTL	REBAR•CAP FILE REOPENED
17	1996484.5257	1016578.1775	637.114	CTL	REBAR•CAP. PINE
18	1996820.6897	1016586.3914	628.164	CTL	REBAR•CAP. PINE
19	1998304.5163	1016968.3218	659.777	CTL	REBAR•CAP
20	1998618.2163	1016951.0945	668.236	CTL	REBAR•CAP
21	1999012.8595	1016934.6849	668.237	CTL	REBAR•CAP
22	2000766.3749	1017913.9425	708.031	CTL	REBAR•CAP
23	2001080.1238	1018096.8263	712.199	CTL	REBAR•CAP
24	2002241.9868	1017217.8219	822.811	CTL	REBAR•CAP
25	2002577.0372	1017457.3460	834.670	CTL	REBAR•CAP
26	2003084.4109	1016786.9463	677.710	CTL	REBAR•CAP
27	2002658.9520	1016352.6232	685.474	CTL	REBAR•CAP
28	2004055.3076	1015956.5815	749.991	CTL	REBAR•CAP
29	2004388.0696	1015882.8011	739.268	CTL	REBAR•CAP
30	2004984.3565	1017172.4933	712.278	CTL	REBAR•CAP
31	2005403.7413	1017152.8635	670.600	CTL	REBAR•CAP
32	2009184.9330	1016565.0210	566.553	CTL	REBAR•CAP FILE REOPENED
33	2009746.2581	1016383.0018	589.695	CTL	REBAR•CAP
34	2010178.7918	1015647.4547	594.193	CTL	REBAR•CAP
35	2006897.2587	1017950.3760	588.427	CTL	REBAR•CAP
36	2007343.4626	1017845.7936	650.535	CTL	REBAR•CAP
37	2009727.7489	1016354.7550	590.258	CTL	CPS PN:21 JOB #060776 REOCCUPIED WI
38	2010182.9666	1015632.8677	594.356	HPT	REBAR•CAP
39	2010354.6166	1014882.8301	609.297	CTL	REBAR•CAP
40	1982835.2569	1018088.2670	499.941	CTL	REBAR•CAP FILE REOPENED
41	1982996.8189	1018757.0643	493.499	CTL	REBAR•CAP
42	1993559.7689	1017250.1195	535.719	CTL	STD ARDOT CAP STAMPED PN:42
43	1993663.2886	1016664.7222	529.443	CTL	STD ARDOT CAP STAMPED PN:43
44	1993816.2256	1015921.9796	524.128	CTL	STD ARDOT CAP STAMPED PN:44
45	1988166.8912	1015900.4652	914.759	CTL	STD ARDOT CAP STAMPED PN:45
46	1987989.4036	1015607.5021	896.311	CTL	STD ARDOT CAP STAMPED PN:46
47	1982980.2401	1016440.2125	502.975	CTL	STD AHTD MON. STAMPED PN:47
48	1982790.4267	1016010.9895	486.325	CTL	STD AHTD MON. STAMPED PN:48
49	1982780.5400	1016411.3436	490.794	CTL	STD AHTD MON. STAMPED PN:49
50	1982744.6277	1016882.2044	503.817	CTL	STD AHTD MON. STAMPED PN:50
51	1982744.9127	1017529.8138	507.336	CTL	STD AHTD MON. STAMPED PN:51
52	1982299.2076	1018084.9601	518.169	CTL	STD AHTD MON. STAMPED PN:52
53	1979875.9711	1018357.1429	418.005	CTL	STD AHTD MON. STAMPED PN:53
54	1979402.8412	1018416.1467	412.151	CTL	STD AHTD MON. STAMPED PN:54
55	1980077.3663	1018474.8836	425.102	CTL	STD AHTD MON. STAMPED PN:55
56	1980749.1642	1018545.9842	451.503	CTL	STD AHTD MON. STAMPED PN:56
57	1981543.7262	1018639.3373	484.144	CTL	STD AHTD MON. STAMPED PN:57
58	1983008.4969	1019647.9723	468.165	CTL	STD AHTD MON. STAMPED PN:58
59	1982768.5272	1018993.5885	478.829	CTL	STD AHTD MON. STAMPED PN:59
60	1983276.1384	1019359.2014	503.518	CTL	STD AHTD MON. STAMPED PN:60
61	1988112.4507	1016915.3636	890.671	CTL	STD AHTD MON. STAMPED PN:61
62	1988396.9763	1017438.0788	908.107	CTL	STD AHTD MON. STAMPED PN:62
63	1988571.7957	1017956.4477	946.221	CTL	STD AHTD MON. STAMPED PN:63
64	1988592.3811	1018394.3463	977.503	CTL	STD AHTD MON. STAMPED PN:64
65	1988512.5368	1018763.6924	999.213	CTL	STD AHTD MON. STAMPED PN:65
100	2010913.8627	1012711.6827	663.854	GPS	AHTD GPS 260001
101	2010293.2981	1013938.8270	620.917	GPS	AHTD GPS 260001A
102	1982693.2083	1013301.2573	513.731	GPS	AHTD GPS 260020
103	1982790.4387	1011152.5938	452.413	GPS	AHTD GPS 260020A
104	2000329.1595	1018537.4127	676.448	GPS	AHTD GPS 260021
105	1998690.9354	1019023.7365	602.373	GPS	AHTD GPS 260021A ELEV BY RTK
808	1983599.5710	1022324.4849	450.121	CTL	8" SPIKE
810	1980822.5428	1018424.4571	453.062	CTL	5/8"REBAR W/2" CAP
811	1981885.8611	1018455.2401	501.723	CTL	5/8"REBAR W/2" CAP
812	1982050.5690	1018820.0922	496.651	CTL	5/8"REBAR W/2" CAP
813	1982248.4861	1019027.5761	493.865	CTL	5/8"REBAR W/2" CAP
814	1982753.8966	1018648.2442	480.518	CTL	5/8"REBAR W/2" CAP
815	1983011.1632	1019094.0965	479.077	CTL	5/8"REBAR W/2" CAP
816	1983264.1024	1018906.5205	499.889	CTL	5/8"REBAR W/2" CAP
817	1983145.3574	1020354.4424	489.347	CTL	5/8"REBAR W/2" CAP
818	1982576.8582	1019342.2314	472.583	CTL	5/8"REBAR W/2" CAP
819	1982361.0602	1018381.1000	487.932	CTL	5/8"REBAR W/2" CAP
820	1982728.3042	1018328.2147	493.477	CTL	5/8"REBAR W/2" CAP
824	1983942.6695	1015787.7054	516.582	CTL	5/8"REBAR W/2" CAP
841	1982996.8192	1018757.0640	493.499	CTL	5/8"REBAR W/2" CAP
901	1983418.3310	1015691.6510	501.427	BM	TBM-901 CHSL SQ DIVIDER
902	1985395.7454	1017183.6380	595.444	BM	TBM-902 CPS 20" PINE
903	1986613.7844	1015630.3375	740.048	BM	TBM-903 CPS 18" OAK
904	1987980.0047	1015492.8544	895.142	CTL	TBM-904 CPS 18" OAK
905	1990599.9358	1017459.3859	600.446	BM	TBM-905 CPS P POLE
906	1992117.7120	1016277.3836	785.245	BM	CPS PP
907	1993478.1276	1017565.3309	548.425	BM	CPS 24" OAK
908	1995600.9029	1016787.7193	552.601	BM	CPS 14" PINE
909	1998065.0547	1017079.0497	678.075	BM	CPS 14" PINE
910	2000759.1730	1017640.2162	698.007	BM	CPS 10" GUM
911	2001405.7836	1017688.2235	753.957	BM	CPS 12" HICKORY
912	2003097.4468	1016860.3190	682.928	BM	CPS 14" PINE
913	2005214.9200	1017156.5540	687.567	BM	CPS CUT OFF PP
914	2008244.4950	1016214.8389	638.020	CTL	CPS IN CUT OFF PP
915	2009128.0654	1016568.0512	565.747	BM	CHSLD SQ CNTR HW
916	2009963.0698	1016015.1634	590.228	BM	CHSLD SQ CNTR HW
917	2003864.1646	1017527.7198	-99999.000	BM	
918	1996492.6245	1016578.7517	-99999.000	BM	
919	1996826.1576	1016590.3183	-99999.000	BM	
920	1993857.7454	1016168.5938	525.049	TBM	SQ CUT IN BR HOT SPRINGS
950	1983838.1782	1017244.0531	548.031	TBM	WEST BOLT HEAD ON FIRE HYDRANT
979	1981511.8840	1011744.3339	457.220	BM	USC&GS R 79 1935
980	2021402.1785	1001385.4801	762.120	BM	NGS POINT L 103
981	2015461.7900	1009105.9849	610.340	BM	NGS POINT K 103
997	1983868.8792	1018511.2957	528.112	BM	TBM-997 CPS CP
998	-99999.0000	-99999.0000	662.210	BM	CPS 30" OAK
999	-99999.0000	-99999.0000	548.833	BM	TBM-999 TOP 1" ROD

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.9999346105 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME sr60140gi.ctl
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 260001 - 260020
CONVERGENCE ANGLE: 0 32 43.07319 LEFT AT LT: 34-32-55.07411N LG: 092-58-27.42514W
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11435 TIMOTHY D. SMITH
06-26-2024

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		14	50

JOB NO. 061855

(2) SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061855	15	50

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

BYPASS ULTIMATE CL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	594+13.87	1979629.2689	1018391.1355
8001	PI	612+70.62	1981479.5194	1018546.3631
8002	PI	622+65.40	1982471.3454	1018623.0312
8003	PI	629+30.15	1983133.2914	1018683.9901
8004	PI	635+00.00	1983700.1227	1018742.6178
8005	PC	641+96.70	1984393.6258	1018809.2151
8007	PT	662+34.87	1985854.5337	1017674.9619
8008	PC	664+32.35	1985884.9592	1017479.8436
8010	PT	673+17.94	1986368.0400	1016772.3003
8011	PC	680+50.04	1987000.6755	1016403.8652
8013	PT	689+91.19	1987905.8617	1016353.9321
8014	PC	729+23.58	1991501.0324	1017947.1578
8016	PT	754+07.12	1993623.1798	1017193.1146
8017	PC	754+25.66	1993631.5909	1017176.5904
8019	PT	774+66.51	1995350.1263	1016384.0649
8020	PC	791+59.70	1996996.4805	1016779.5753
8022	PT	798+91.25	1997712.7555	1016927.6421
8023	PC	809+32.01	1998738.1742	1017105.6972
8025	PT	821+25.16	1999900.9899	1017370.5988
8026	PC	826+58.29	2000413.9399	1017515.9079
8028	PT	847+93.38	2002490.2323	1017314.7232
8029	PC	862+24.37	2003766.5564	1016667.6174
8031	PT	878+87.17	2005344.0625	1016786.0107
8032	PC	883+36.15	2005709.7244	1017046.5409
8034	PT	898+99.68	2007191.6480	1017415.2278
8035	PC	916+62.05	2008938.8342	1017184.3509
8037	PT	922+52.40	2009410.3855	1016865.1704
8038	POE	924+43.89	2009504.2219	1016698.2396

SITES D-2 & D-3

POINT NO.	TYPE	STATION	NORTHING	EASTING
8440	POB	773+33.00	1995168.4077	1016695.8892
8441	PC	775+53.50	1994953.0174	1016648.7091
8443	PT	777+15.31	1994877.8526	1016525.0294
8444	PC	777+39.58	1994884.1607	1016501.5978
8446	PT	778+29.56	1994856.1686	1016421.6774
8447	POE	783+14.53	1994465.4494	1016134.3817

SITE A

POINT NO.	TYPE	STATION	NORTHING	EASTING
8400	POB	776+85.22	1994874.4867	1016554.8210
8401	PC	776+84.84	1994874.5015	1016555.1936
8403	PT	776+82.13	1994874.6514	1016557.9023
8404	POE	776+80.13	1994874.8089	1016559.8962

SITE C-1

POINT NO.	TYPE	STATION	NORTHING	EASTING
8405	POB	739+36.00	1992460.3098	1017899.3833
8406	PC	740+00.44	1992518.6458	1017926.7508
8408	PT	740+77.58	1992593.7853	1017930.7321
8409	PC	740+80.39	1992596.4431	1017929.8134
8411	PT	742+09.84	1992711.1267	1017967.1140
8412	PC	743+48.04	1992790.1950	1018080.4599
8414	PT	744+41.47	1992872.7246	1018109.5449
8415	POE	747+06.85	1993127.4691	1018035.1773

SITE C-2

POINT NO.	TYPE	STATION	NORTHING	EASTING
8416	POB	119+55.00	1993154.5515	1018433.3982
8417	PC	119+79.11	1993132.0935	1018424.6399
8419	PT	120+57.37	1993066.5188	1018382.8392
8420	PC	122+89.64	1992898.6679	1018222.2923
8422	PT	124+25.77	1992925.3813	1018112.9242
8423	POE	126+41.55	1993132.5133	1018052.4561

SITE C-3

POINT NO.	TYPE	STATION	NORTHING	EASTING
8424	POB	741+12.00	1992524.9991	1018497.3869
8425	PC	742+63.25	1992631.1563	1018389.6485
8427	PT	743+26.50	1992658.8677	1018333.9650
8428	PC	744+56.00	1992677.6481	1018205.8368
8430	PT	745+74.33	1992752.6313	1018123.2521
8431	POE	746+45.35	1992821.5852	1018106.2354

SITE D-1

POINT NO.	TYPE	STATION	NORTHING	EASTING
8432	POB	723+66.00	1994270.4963	1016099.7055
8433	PC	724+34.47	1994227.6026	1016153.0800
8435	PT	724+93.44	1994174.5524	1016169.7366
8436	PC	726+91.03	1993984.9481	1016114.1095
8438	PT	727+46.99	1993938.3055	1016084.5300
8439	POE	728+39.63	1993876.8121	1016015.2373

6/19/2024

R061855.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		16	50
				JOB NO.		061855		

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

SURVEY BASELINE N69°29'20"W 1029.56'

PI#5

SURVEY BASELINE N00°31'51"W 245.61'

PI#6

SITE A EROSION DITCH ALG.

P.I. 669+06.79

655

660

665

670

675

680

685

P.T. 662+34.87

P.C. 664+32.35

BYPASS ULTIMATE CL

SITE A EROSION DITCH
PI = 672+30.67
Δ = 31°45'09"LT.
D = 9°32'57"
T = 170.65'
L = 332.51'
PC = 670+60.02
PT = 673+92.53

P.T. 673+17.94

P.C. 680+50.04

P.I. 685+59.03

SURVEY BASELINE N02°45'18"W 2763.35'

SURVEY CONTROL DETAILS

6/20/2024

R061855.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		17	50
JOB NO.		061855		

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED
PROFESSIONAL
ENGINEER
No. 11425
TRINITY D. SMITH

Trinity Smith
06-26-2024

690
695
700
705
710
715

BYPASS ULTIMATE CL

P.T. 689+91.19

P.I. 685+39.03

N 29°54'03" E
508.99

N 29°54'03" E
3552.36

SURVEY

6/19/2024

R061855.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		18	50
				JOB NO.		061855		

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

06-26-2024

715 720 725 730 735 740 745

BYPASS ULTIMATE CL

P.C. 729+23.58

SITE C-1EROSION CHANNEL
PI = 740+41.04
Δ = 44°12'00"LT.
D = 57°17'45"
T = 40.60'
L = 77.14'
PC = 740+00.44
PT = 740+77.58

SITE C-2 EROSION CHANNEL
PI = 124+02.22
Δ = 120°00'00"RT.
D = 88°08'50"
T = 112.58'
L = 136.13'
PC = 122+89.64
PT = 124+25.77

SITE C-1EROSION CHANNEL
PI = 744+01.91
Δ = 71°22'31"LT.
D = 76°26'40"
T = 53.86'
L = 93.43'
PC = 743+48.04
PT = 744+41.47

SITE C-1EROSION CHANNEL ALG.

SITE C-1EROSION CHANNEL
PI = 741+55.98
Δ = 74°10'05"RT.
D = 57°17'45"
T = 75.59'
L = 129.45'
PC = 740+80.39
PT = 742+09.84

SITE C-2 EROSION CHANNEL ALG.

SITE C-3 EROSION CHANNEL
PI = 742+95.97
Δ = 36°14'15"LT.
D = 57°17'45"
T = 32.72'
L = 63.25'
PC = 742+63.25
PT = 743+26.50

SITE C-3 EROSION CHANNEL ALG.

SITE C-3 EROSION CHANNEL
PI = 745+23.19
Δ = 36°14'15"RT.
D = 67°47'45"
T = 67.19'
L = 118.33'
PC = 744+56.00
PT = 745+74.33

SITE C-2 EROSION CHANNEL
PI = 120+18.74
Δ = 22°25'14"RT.
D = 28°38'52"
T = 39.63'
L = 78.26'
PC = 119+79.11
PT = 120+57.37

PT 744+74.33

6/20/2024

R061855.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		19	50
JOB NO.		061855		

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

SITE D-1 EROSION CHANNEL
PI = 727+19.76
Δ = 32°03'43"RT.
D = 57°17'45"
T = 28.73'
L = 55.96'
PC = 726+91.03
PT = 727+46.99

SITE D-1 EROSION CHANNEL
PI = 724+67.92
Δ = 67°33'51"RT.
D = 114°35'30"
T = 33.45'
L = 58.97'
PC = 724+34.47
PT = 724+93.44

SITE D-1 EROSION CHANNEL ALG.

SURVEY BASELINE N39°19'55"W 4521.81'

SURVEY BASELINE N01°50'59"W 361.81'

SITES D-2 & D-3 EROSION CHANNEL
PI = 777+90.87
Δ = 68°44'26"RT.
D = 76°23'40"
T = 51.29'
L = 89.98'
PC = 777+39.58
PT = 778+29.56

BYPASS ULTIMATE CL

SITES D-2 & D-3 EROSION CHANNEL
PI = 776+58.35
Δ = 92°42'44"RT.
D = 57°17'45"
T = 104.85'
L = 161.81'
PC = 775+53.50
PT = 777+15.31

P.T. 774+66.51

SURVEY BASELINE N09°30'80.60"W 2102.12'

SITES D-2 & D-3 EROSION CHANNEL ALG.

P.T. 754+01.12

P.C. 754+25.66

760 765 770 775 780 755 750 745 725

6/20/2024

R061855.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	20	50
		PLAN SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

06-26-2024

N

EXISTING R/W & C/A

655 660 670 675 680 685

P.I. 669+06.79

P.T. 662+24.87

N 81°08'13" W

P.C. 664+32.35

P.T. 673+17.94

N 30°12'57" W

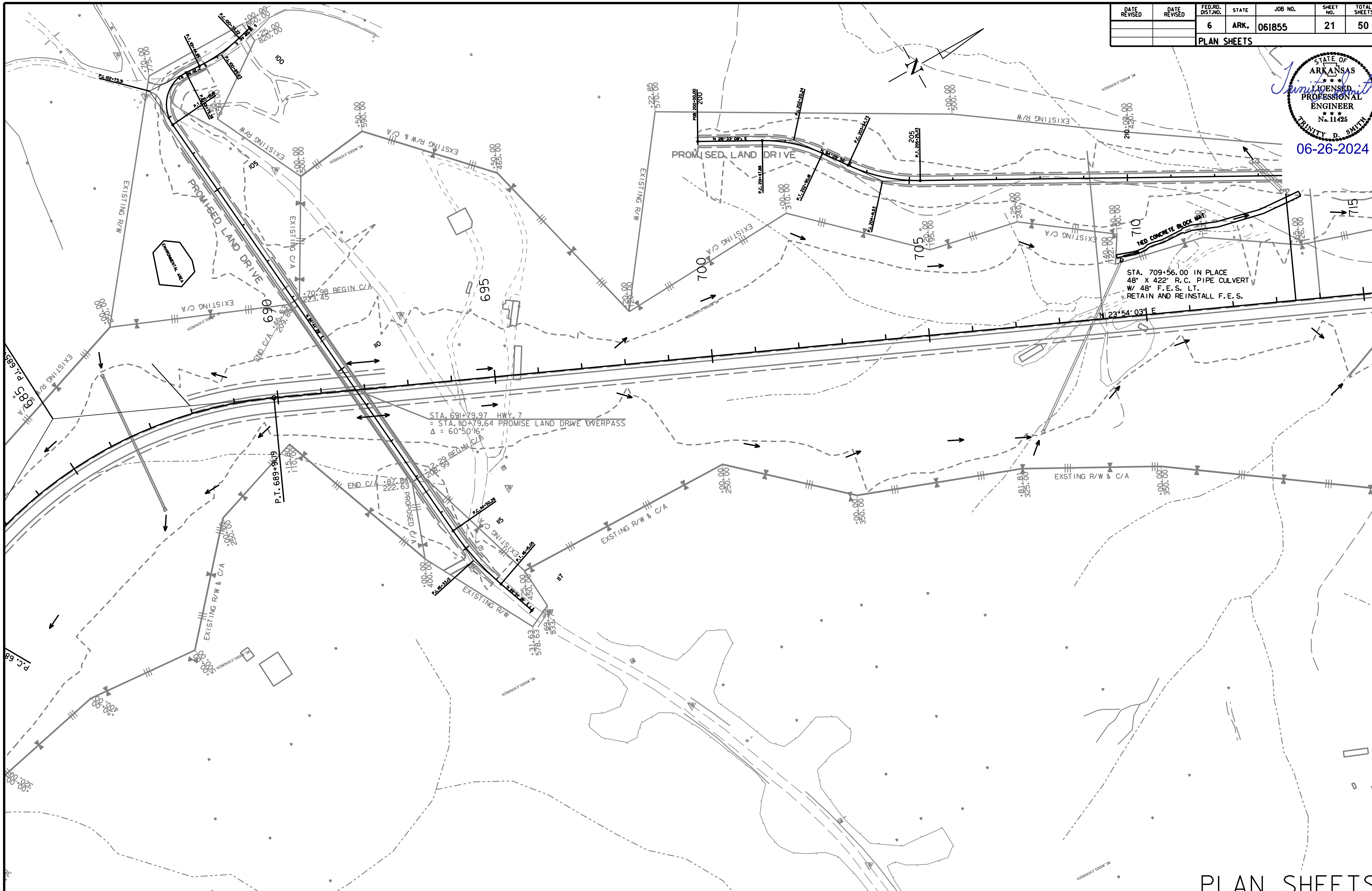
P.C. 680+50.04

P.I. 685+59.03

150.00 130.00 710.00 530.00 380.00 320.00 460.00 500.00 260.00 125.00

PLAN SHEETS

rb43088 6/19/2024
R061855.DGN MicroStation v8.11.9.578



rb43088
6/19/2024
R061855.DGN
MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	22	50
		PLAN SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

06-26-2024

STA. 721+14.92 HWY. 7
= STA. 102+18.57 COVENANT TRAIL
Δ = 89°59'45"

STA. 745+00.00 HWY. 7
= STA. 113+70.33 MILL CREEK ROAD
Δ = 60°00'00"

PROMISED LAND DRIVE

COVENANT TRAIL

MILL CREEK ROAD

MILL CREEK RAMP

MILL CREEK ROAD RAMP 2

EXISTING R/W & C/A

EXISTING C/A

EXISTING R/W

BEGIN C/A

END C/A

P.C. 729+23.58

PLAN SHEETS

r04.3088 6/19/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	23	50
		PLAN SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

STA. 103+75.81 DENISE LANE
= STA. 770+50.27 MILL CREEK ROAD RAMP 3
Δ = 68°34'22"

STA. 770+50.00 HWY. 7
= STA. 104+00.27 DENISE LANE
Δ = 75°00'00"

STA. 772+42.58 HWY. 7
= STA. 772+52.01 MILL CREEK ROAD RAMP 3
Δ = 6°46'43"

FENCING

STA.	STA.	SIDE	GATE
768+26	769+42	RT.	16

STA. 757+29.68 HWY. 7
= STA. 757+21.60 MILL CREEK ROAD RAMP 4
Δ = 4°51'42"

STA. 745+00.00 HWY. 7
= STA. 113+70.33 MILL CREEK ROAD
Δ = 60°00'00"

MILL CREEK ROAD RAMP 3

MILL CREEK ROAD RAMP 4

MILL CREEK ROAD

DENISE LANE

16'0" GATE

EXISTING R/W & C/A

EXISTING R/W

EXISTING C/A

END C/A

BEGIN C/A

P.I. 764+66.51

PLAN SHEETS

rb43088 6/19/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	24	50
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
07-25-2024

SITE A EROSION DITCH
PI = 675+54.54
Δ = 40°24'53" RT.
D = 29°22'57"
T = 71.77'
L = 137.54'
PC = 674+82.77
PT = 676+20.31

SITE A EROSION DITCH
PI = 672+12.96
Δ = 31°19'31"LT.
D = 9°32'57"
T = 168.23'
L = 328.03'
PC = 670+44.73
PT = 673+72.76

SITE C-1 EROSION CHANNEL
PI = 744+01.91
Δ = 71°22'31"LT.
D = 76°26'40"
T = 53.86'
L = 93.43'
PC = 743+48.04
PT = 744+41.47

SITE C-1 EROSION CHANNEL
PI = 741+55.98
Δ = 74°10'05"RT.
D = 57°17'45"
T = 75.59'
L = 129.45'
PC = 740+80.39
PT = 742+09.84

SITE C-1 EROSION CHANNEL
PI = 740+41.04
Δ = 44°12'00"LT.
D = 57°17'45"
T = 40.60'
L = 77.14'
PC = 740+00.44
PT = 740+77.58

SITE C-2 EROSION CHANNEL
PI = 124+02.22
Δ = 120°00'00"RT.
D = 88°08'50"
T = 112.58'
L = 136.13'
PC = 122+89.64
PT = 124+25.77

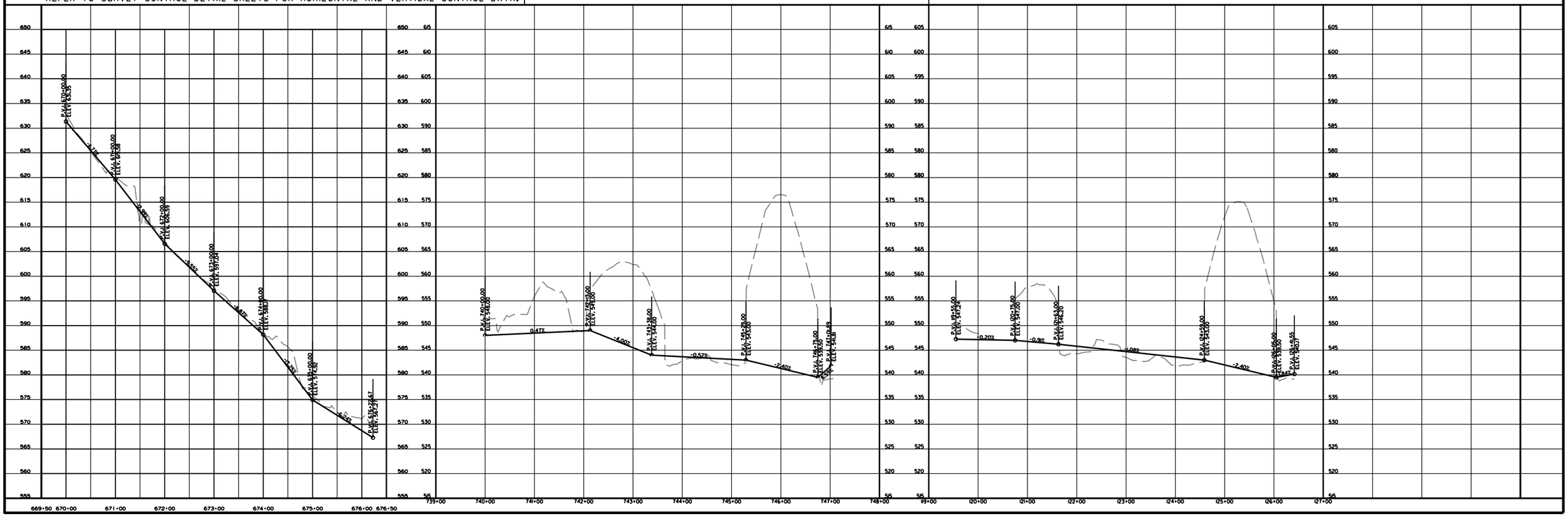
SITE C-2 EROSION CHANNEL
PI = 120+18.74
Δ = 22°25'14"RT.
D = 28°38'52"
T = 39.63'
L = 78.26'
PC = 119+79.11
PT = 120+57.37

SITE A

SITE C-1

SITE C-2

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



rb43088 7/24/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	25	50
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
06-26-2024

SITE C-3 EROSION CHANNEL
PI = 745+23.19
Δ = 36°14'15"RT.
D = 67°47'45"
T = 67.19'
L = 118.33'
PC = 744+56.00
PT = 745+74.33

SITE C-3 EROSION CHANNEL
PI = 742+95.97
Δ = 36°14'15"LT.
D = 57°17'45"
T = 32.72'
L = 63.25'
PC = 742+63.25
PT = 743+26.50

SITE C-3

SITE D-1 EROSION CHANNEL
PI = 724+67.92
Δ = 67°33'51"RT.
D = 114°35'30"
T = 33.45'
L = 58.97'
PC = 724+34.47
PT = 724+93.44

SITE D-1 EROSION CHANNEL
PI = 727+19.76
Δ = 32°03'43"RT.
D = 57°17'45"
T = 28.73'
L = 55.96'
PC = 726+91.03
PT = 727+46.99

SITE D-1

SITES D-2 & D-3 EROSION CHANNEL
PI = 777+90.87
Δ = 68°44'26"RT.
D = 76°23'40"
T = 51.29'
L = 89.98'
PC = 777+39.58
PT = 778+29.56

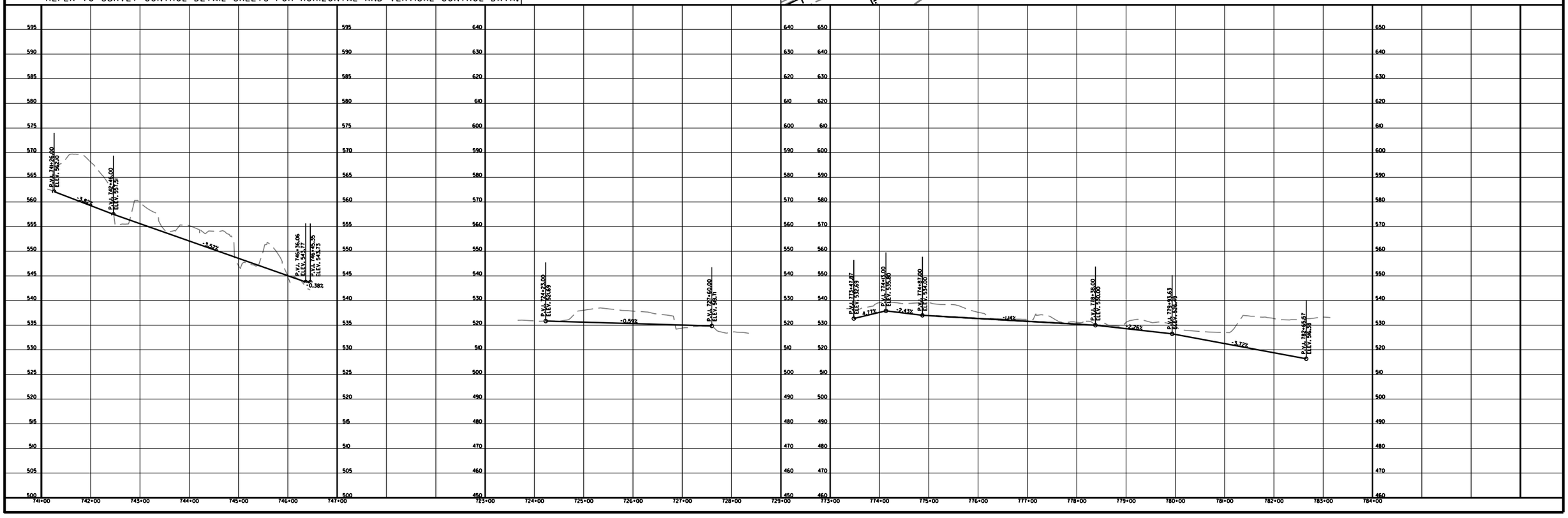
SITES D-2 & D-3 EROSION CHANNEL
PI = 776+58.35
Δ = 92°42'44"RT.
D = 57°17'45"
T = 104.85'
L = 161.81'
PC = 775+53.50
PT = 777+15.31

SITES D-2 & 3

MITTEN CREEK ROAD

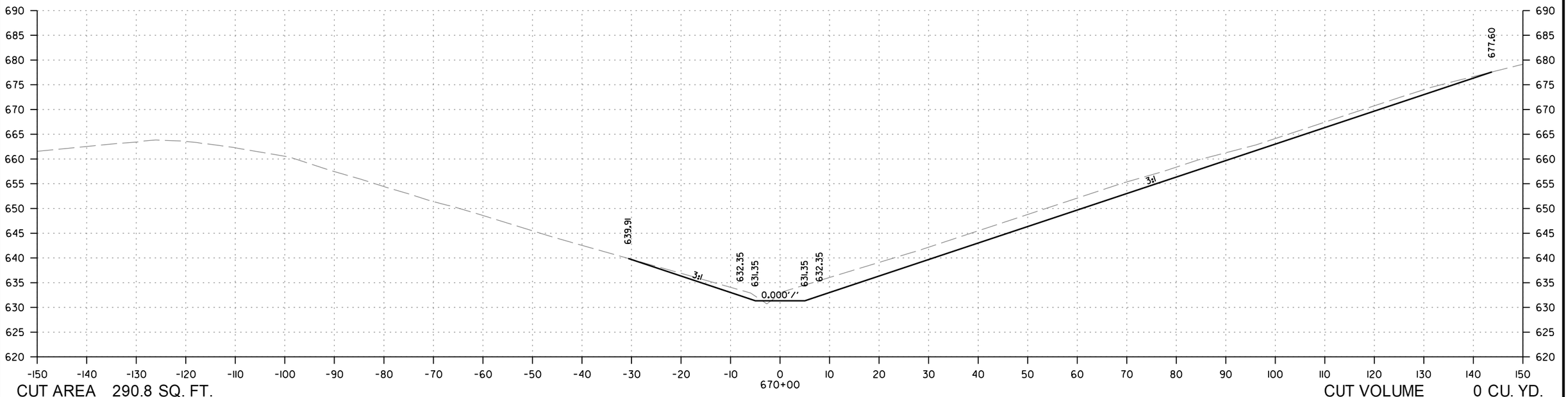
ROCKY RD

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



rb43088 6/20/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	26	50
		CROSS SECTIONS				



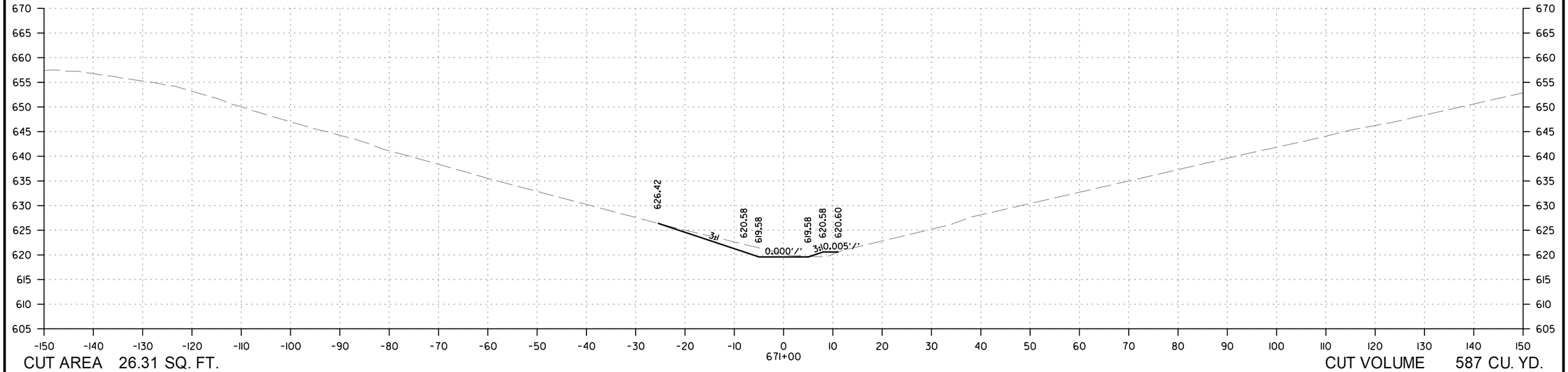
CUT AREA 290.8 SQ. FT.
FILL AREA 0.57 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE A
CROSS SECTION STA. 670+00 TO STA. 670+00

rb43088 7/24/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	27	50
		CROSS SECTIONS				



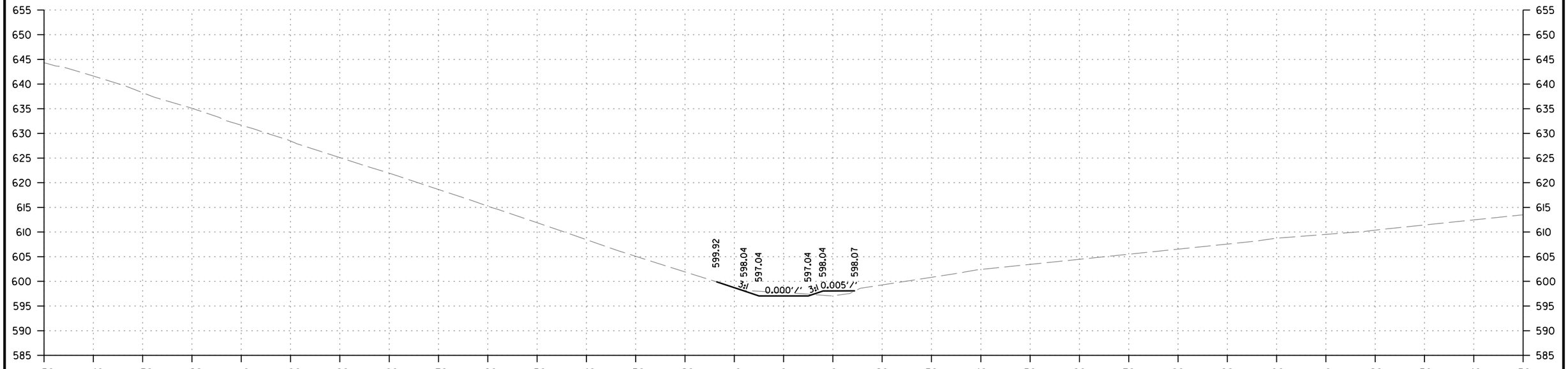
CUT AREA 26.31 SQ. FT.
FILL AREA 3.16 SQ. FT.

CUT VOLUME 587 CU. YD.
FILL VOLUME 7 CU. YD.

SITE A
CROSS SECTION STA. 671+00 TO STA. 671+00

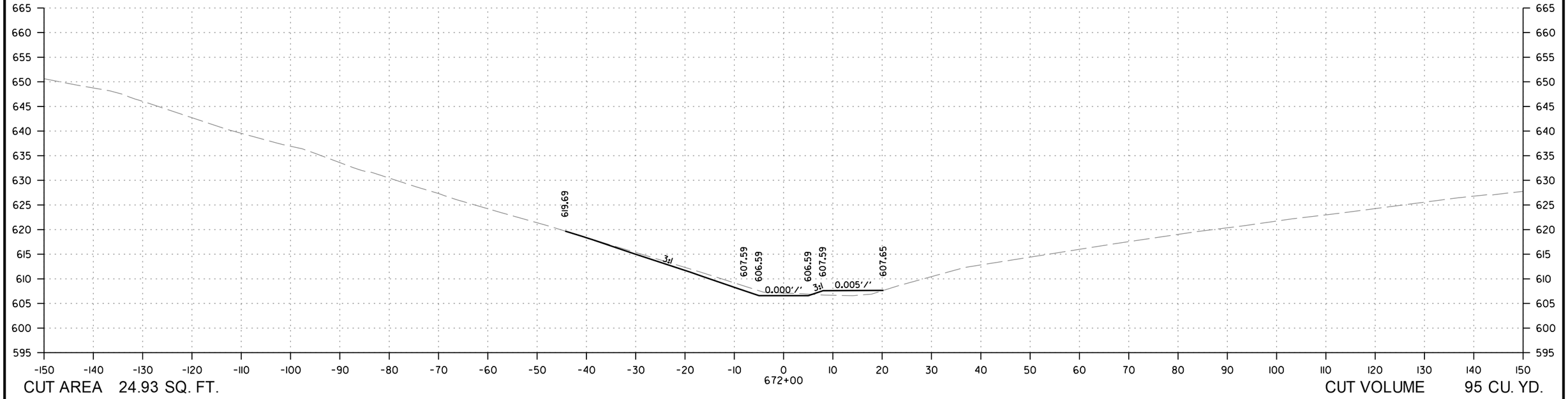
rb43088 7/24/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	28	50
		CROSS SECTIONS				



CUT AREA 8.89 SQ. FT.
FILL AREA 5.61 SQ. FT.

CUT VOLUME 63 CU. YD.
FILL VOLUME 31 CU. YD.



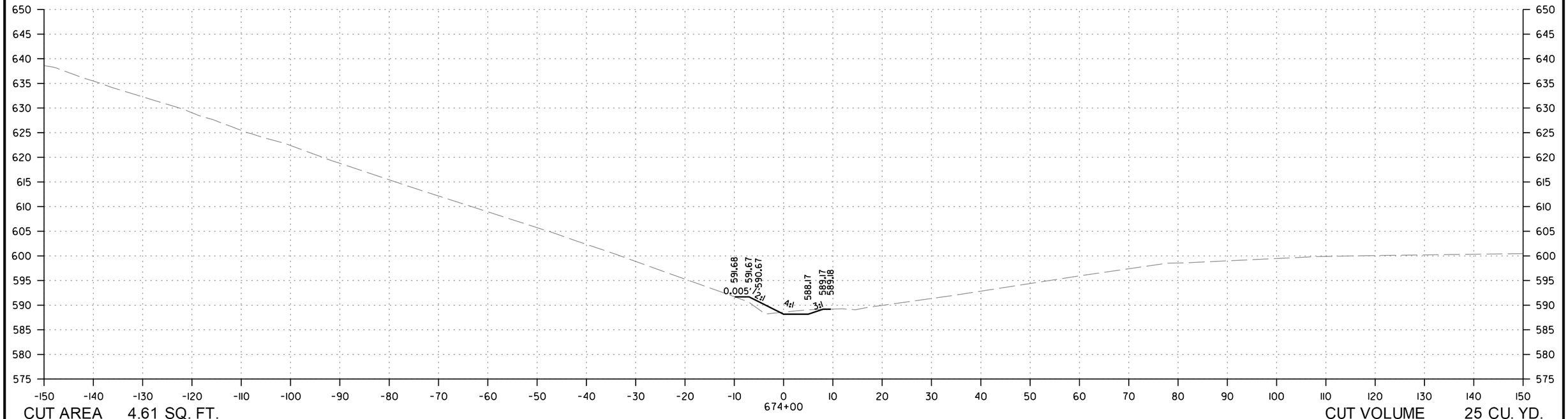
CUT AREA 24.93 SQ. FT.
FILL AREA 11.11 SQ. FT.

CUT VOLUME 95 CU. YD.
FILL VOLUME 26 CU. YD.

SITE A
CROSS SECTION STA. 672+00 TO STA. 673+00

rb43088 7/24/2024 MicroStation v8.11.9.578 R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	29	50
		CROSS SECTIONS				



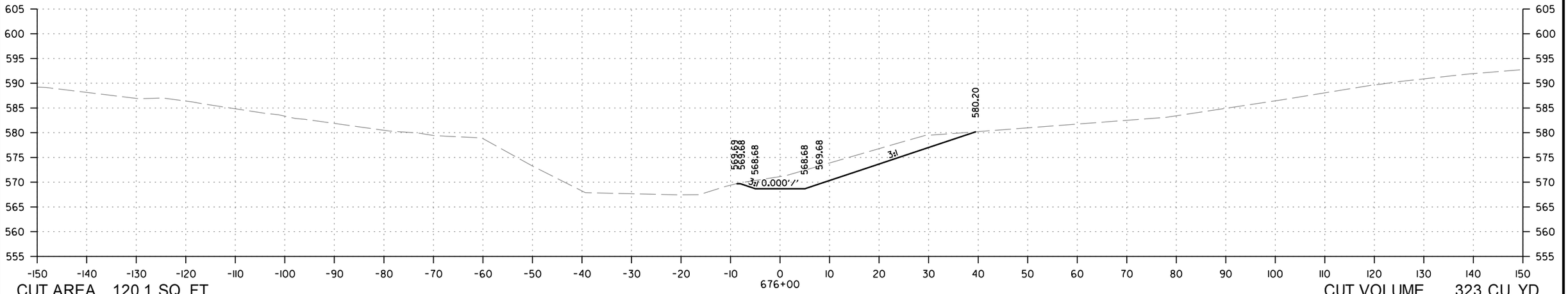
CUT AREA 4.61 SQ. FT.
FILL AREA 9.23 SQ. FT.

CUT VOLUME 25 CU. YD.
FILL VOLUME 27 CU. YD.

SITE A
CROSS SECTION STA. 674+00 TO STA. 674+00

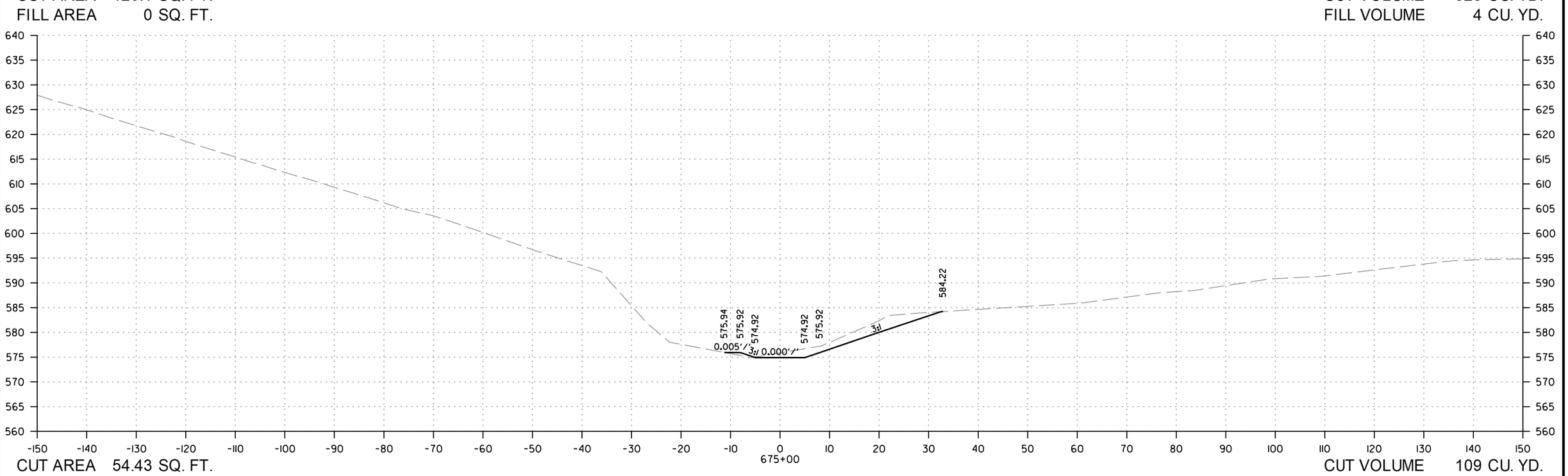
rb43088 7/24/2024 MicroStation v8.11.9.578 R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	30	50
		CROSS SECTIONS				



CUT AREA 120.1 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 323 CU. YD.
FILL VOLUME 4 CU. YD.



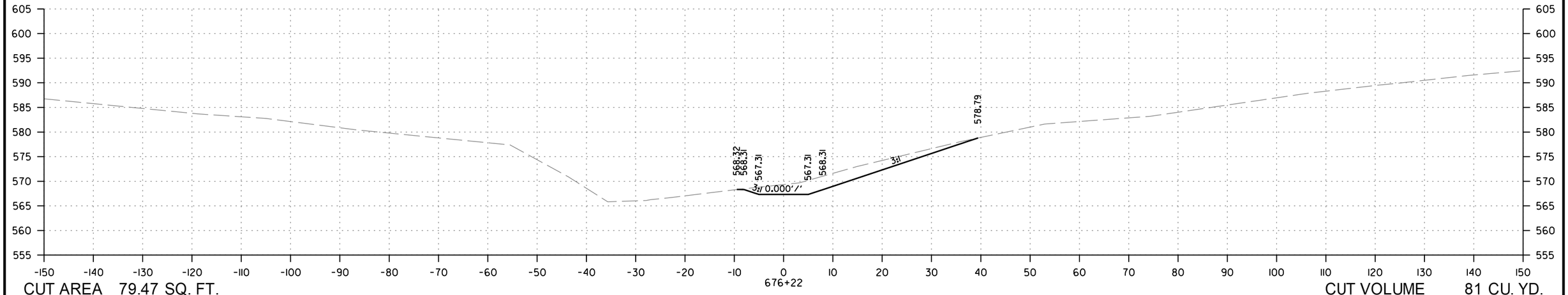
CUT AREA 54.43 SQ. FT.
FILL AREA 2.09 SQ. FT.

CUT VOLUME 109 CU. YD.
FILL VOLUME 21 CU. YD.

SITE A
CROSS SECTION STA. 675+00 TO STA. 676+00

rb43088 7/24/2024 MicroStation v8.11.9.578 R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
7/24/2024		6	ARK.	061855	31	50
		CROSS SECTIONS				



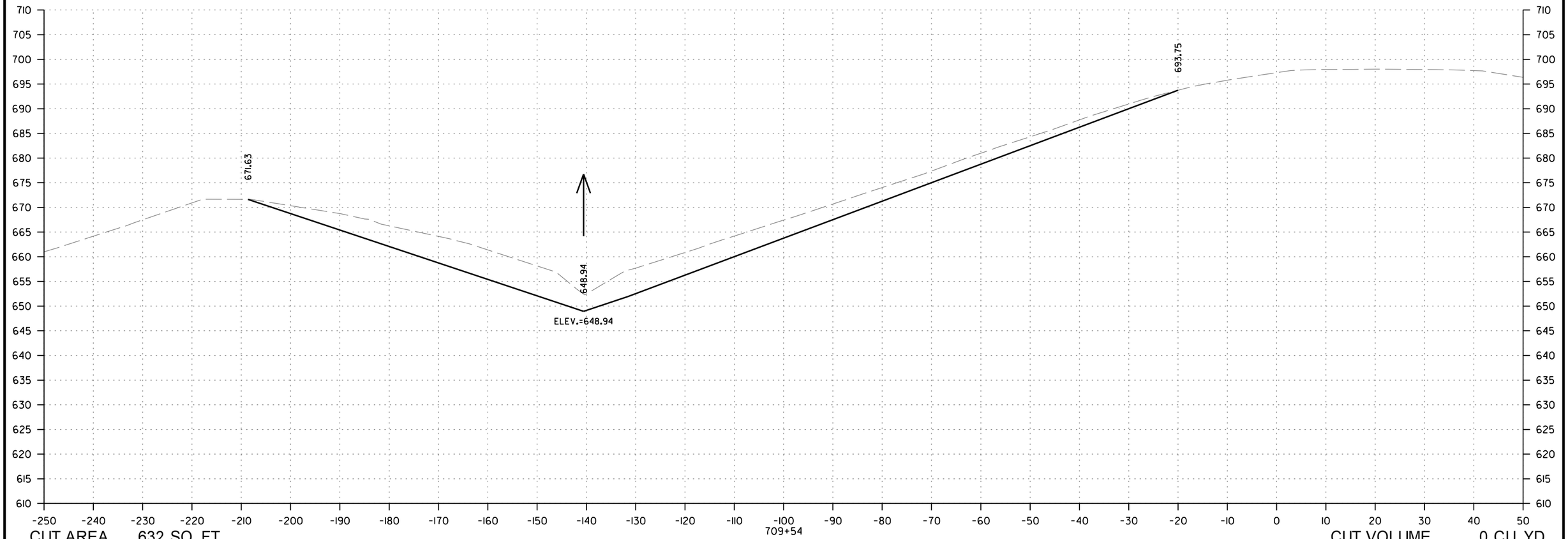
CUT AREA 79.47 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 81 CU. YD.
FILL VOLUME 0 CU. YD.

SITE A
CROSS SECTION STA. 676+22 TO STA. 676+22

rb43088 7/24/2024
R061855.DGN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	32	50
		CROSS SECTIONS				



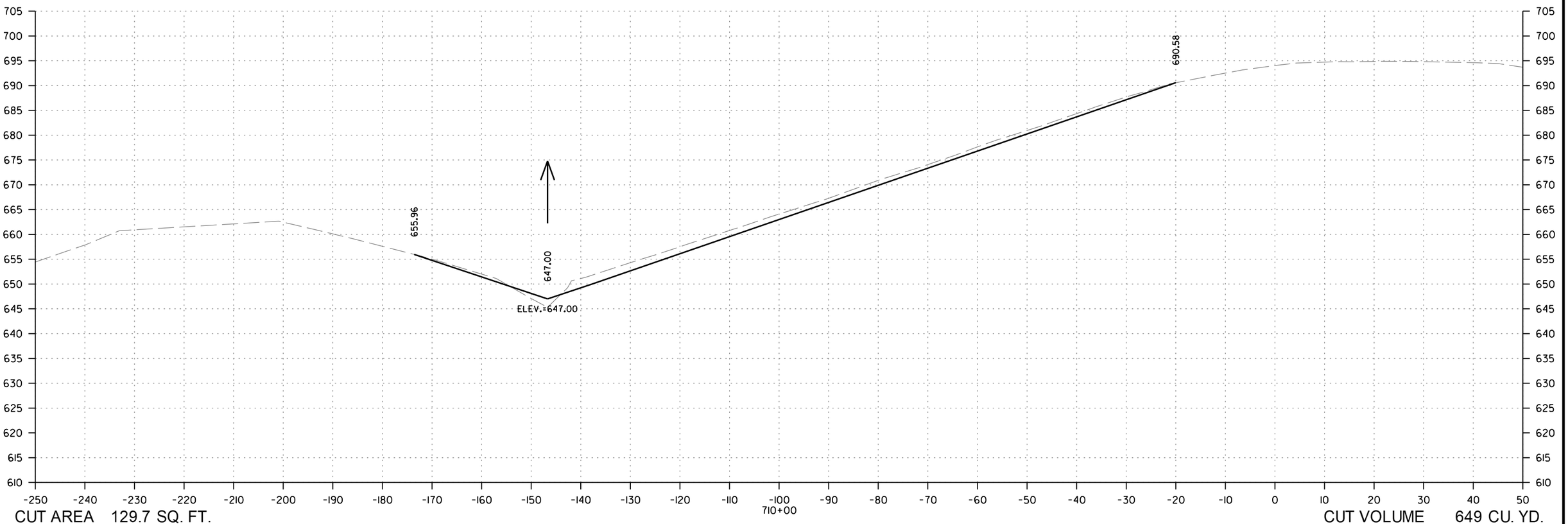
CUT AREA 632 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE B
CROSS SECTION STA. 709+54 TO STA. 709+54

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	33	50
		CROSS SECTIONS				



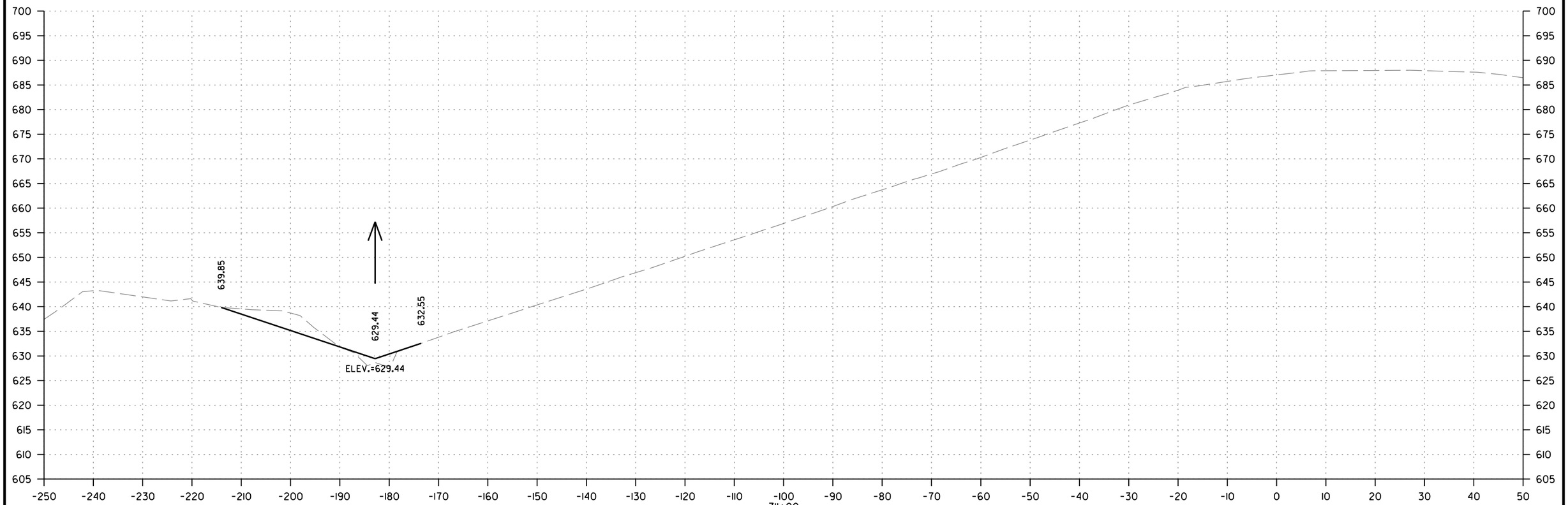
CUT AREA 129.7 SQ. FT.
FILL AREA 9.01 SQ. FT.

CUT VOLUME 649 CU. YD.
FILL VOLUME 8 CU. YD.

SITE B
CROSS SECTION STA. 710+00 TO STA. 710+00

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	34	50
		CROSS SECTIONS				



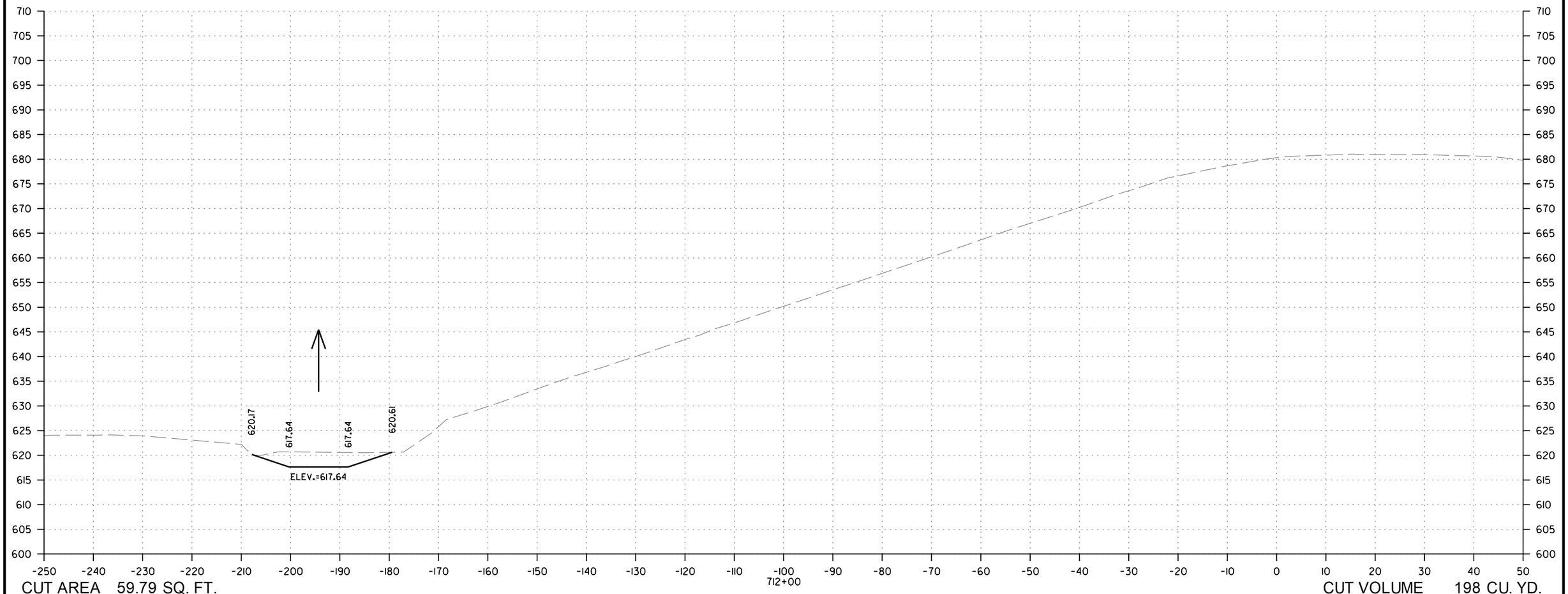
CUT AREA 47.26 SQ. FT.
FILL AREA 13.1 SQ. FT.

CUT VOLUME 328 CU. YD.
FILL VOLUME 41 CU. YD.

SITE B
CROSS SECTION STA. 711+00 TO STA. 711+00

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	35	50
		CROSS SECTIONS				



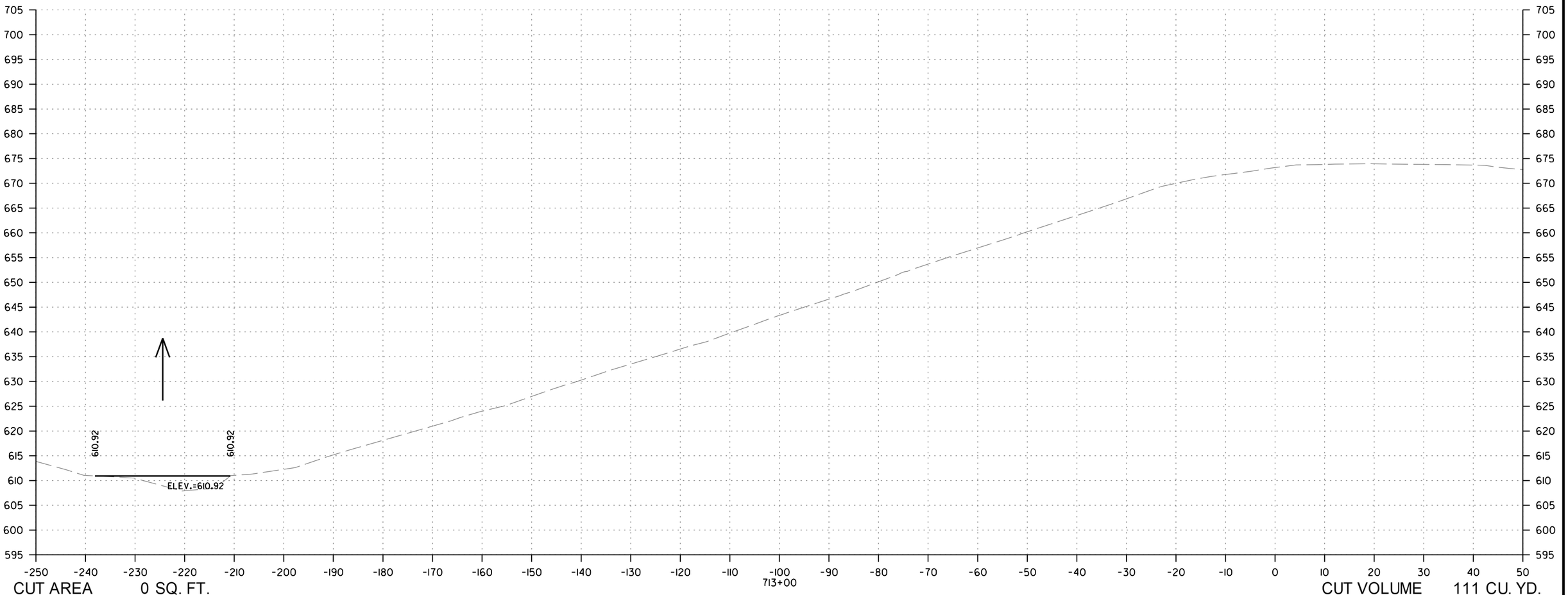
CUT AREA 59.79 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 198 CU. YD.
FILL VOLUME 24 CU. YD.

SITE B
CROSS SECTION STA. 712+00 TO STA. 712+00

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	36	50
		CROSS SECTIONS				



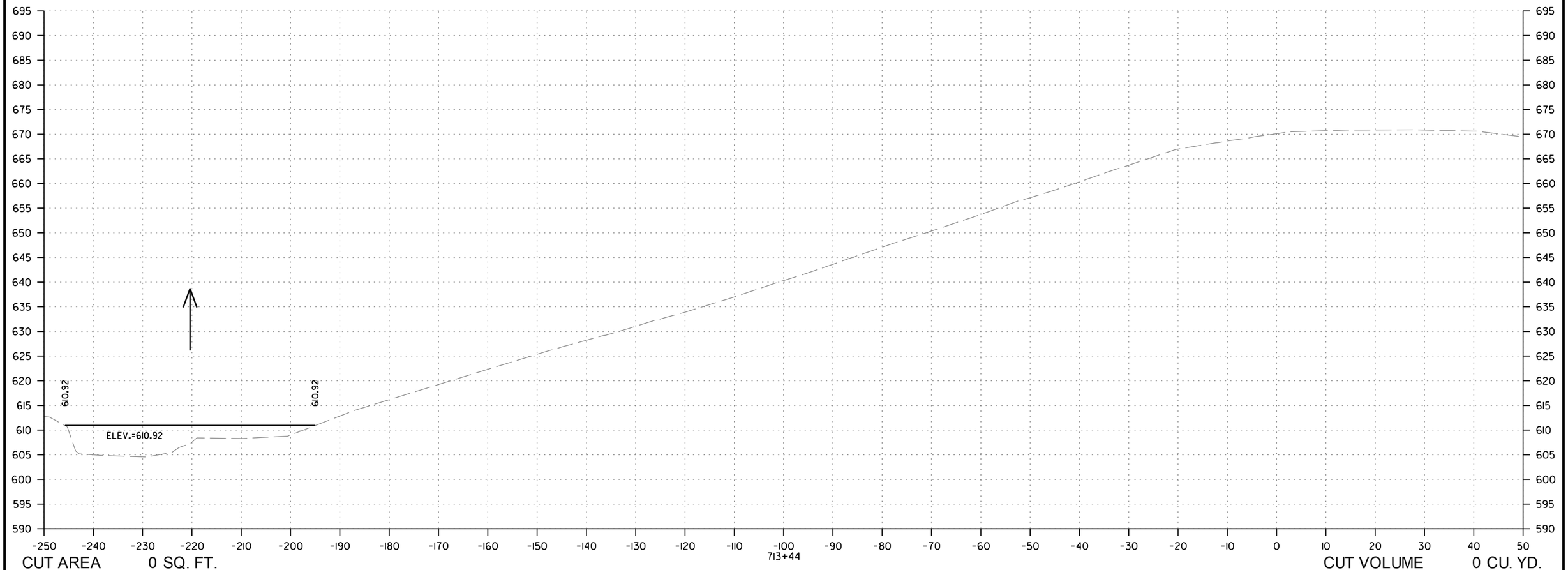
CUT AREA 0 SQ. FT.
FILL AREA 40.31 SQ. FT.

CUT VOLUME 111 CU. YD.
FILL VOLUME 75 CU. YD.

SITE B
CROSS SECTION STA. 713+00 TO STA. 713+00

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	37	50
		CROSS SECTIONS				



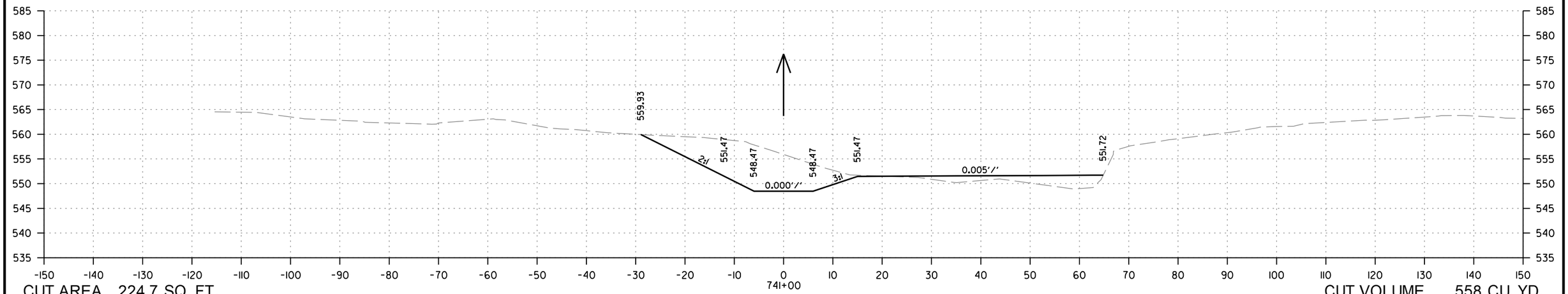
CUT AREA 0 SQ. FT.
FILL AREA 191.4 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 189 CU. YD.

SITE B
CROSS SECTION STA. 713+44 TO STA. 713+44

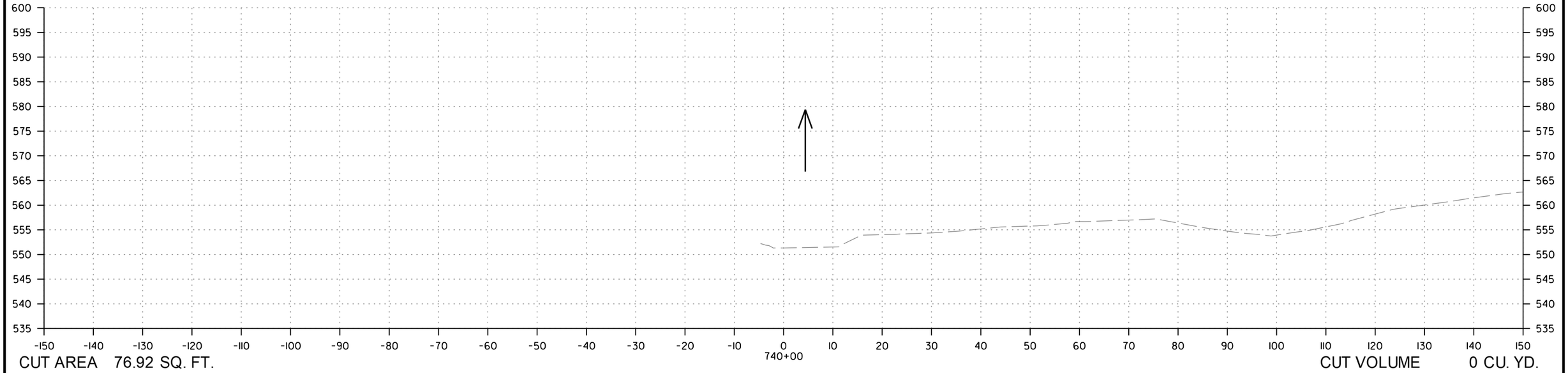
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	38	50
		CROSS SECTIONS				



CUT AREA 224.7 SQ. FT.
FILL AREA 55.08 SQ. FT.

CUT VOLUME 558 CU. YD.
FILL VOLUME 102 CU. YD.



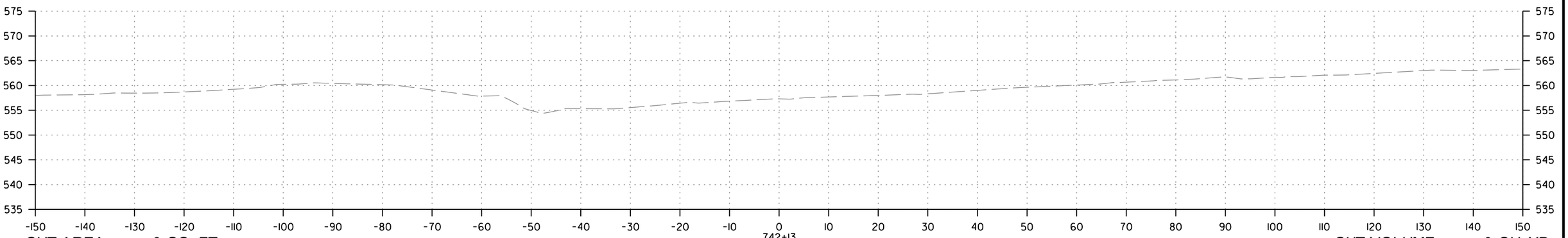
CUT AREA 76.92 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE C-1
CROSS SECTION STA. 740+00 TO STA. 741+00

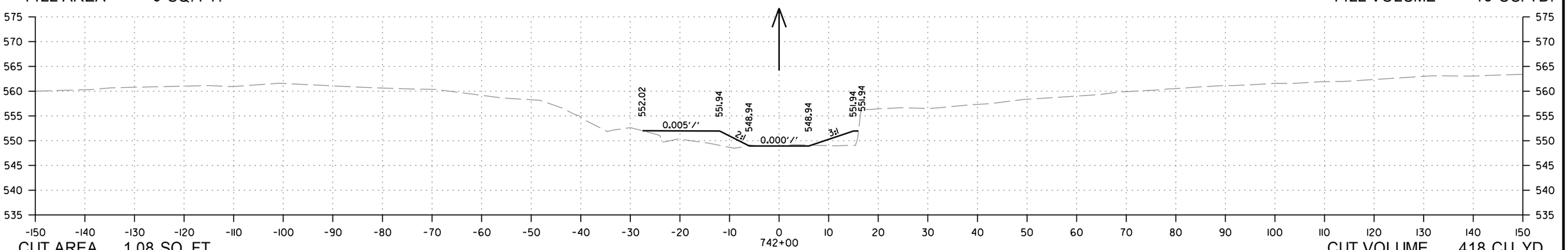
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	39	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 13 CU. YD.



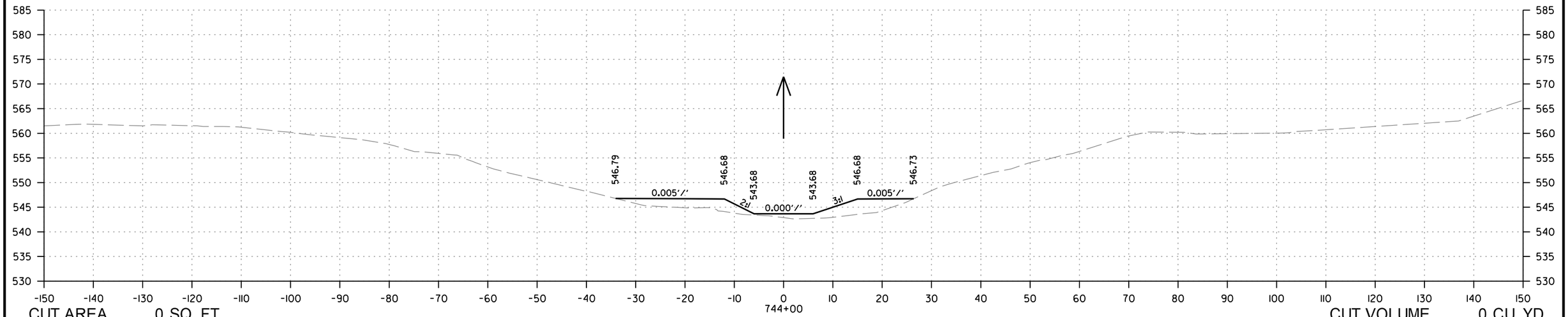
CUT AREA 1.08 SQ. FT.
FILL AREA 52.5 SQ. FT.

CUT VOLUME 418 CU. YD.
FILL VOLUME 199 CU. YD.

SITE C-1
CROSS SECTION STA. 742+00 TO STA. 742+13

rb43088 6/19/2024
R061855.DGN

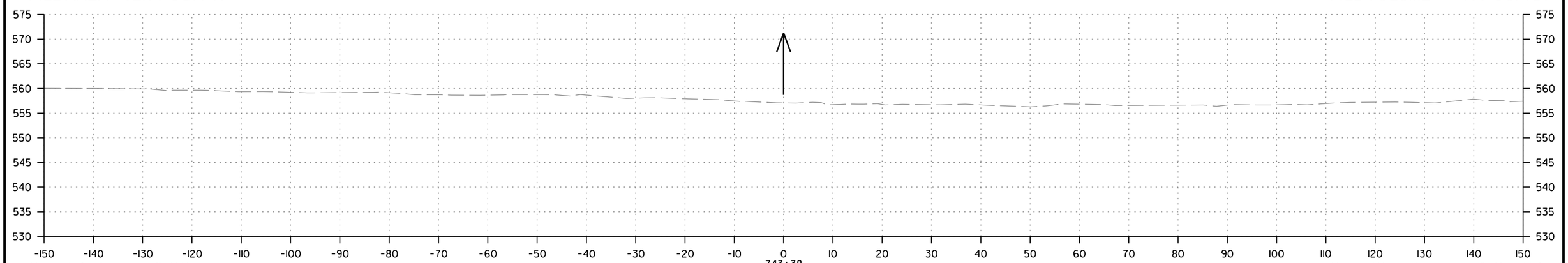
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	40	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 92.51 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 106 CU. YD.

744+00



CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

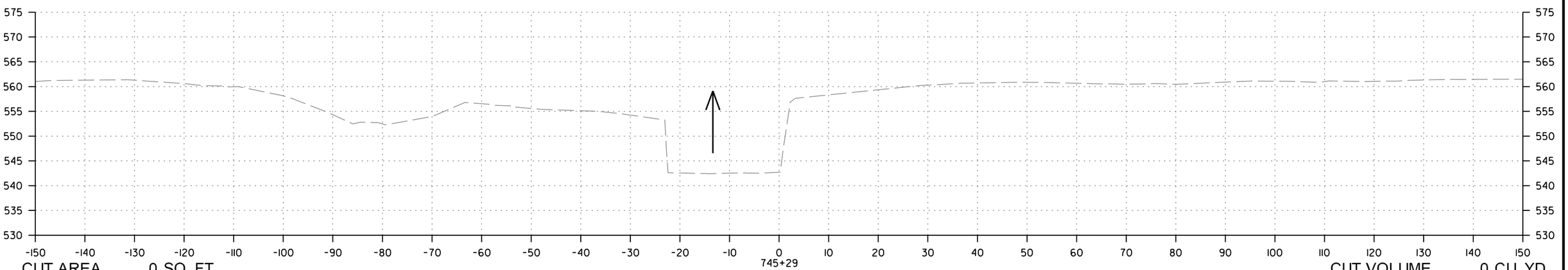
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

743+38

SITE C -I
CROSS SECTION STA. 743+38 TO STA. 744+00

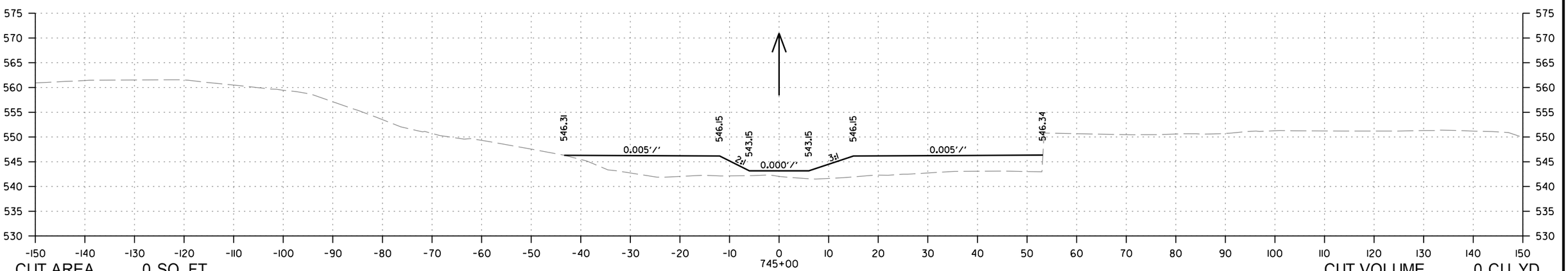
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	41	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 82 CU. YD.



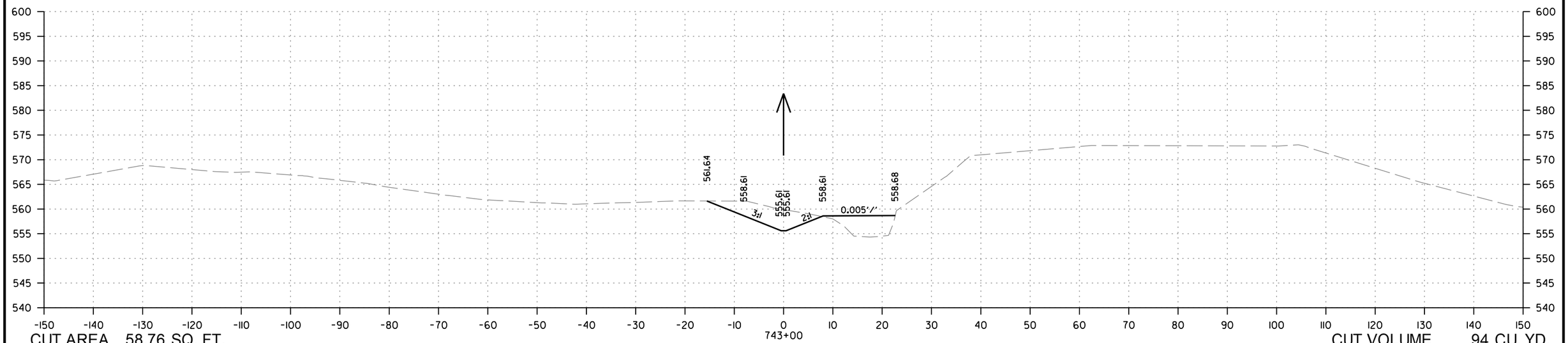
CUT AREA 0 SQ. FT.
FILL AREA 153.4 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 455 CU. YD.

SITE C-1
CROSS SECTION STA. 745+00 TO STA. 745+29

rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	42	50
		CROSS SECTIONS				



CUT AREA 58.76 SQ. FT.
FILL AREA 42.85 SQ. FT.

CUT VOLUME 94 CU. YD.
FILL VOLUME 43 CU. YD.

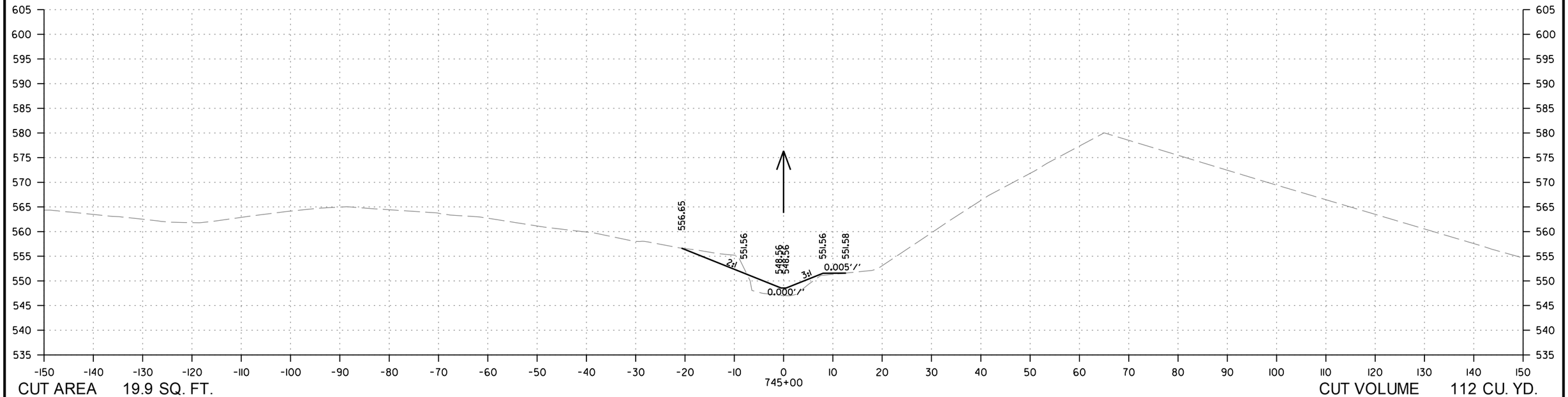
CUT AREA 35.2 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE C-3
CROSS SECTION STA. 742+46 TO STA. 743+00

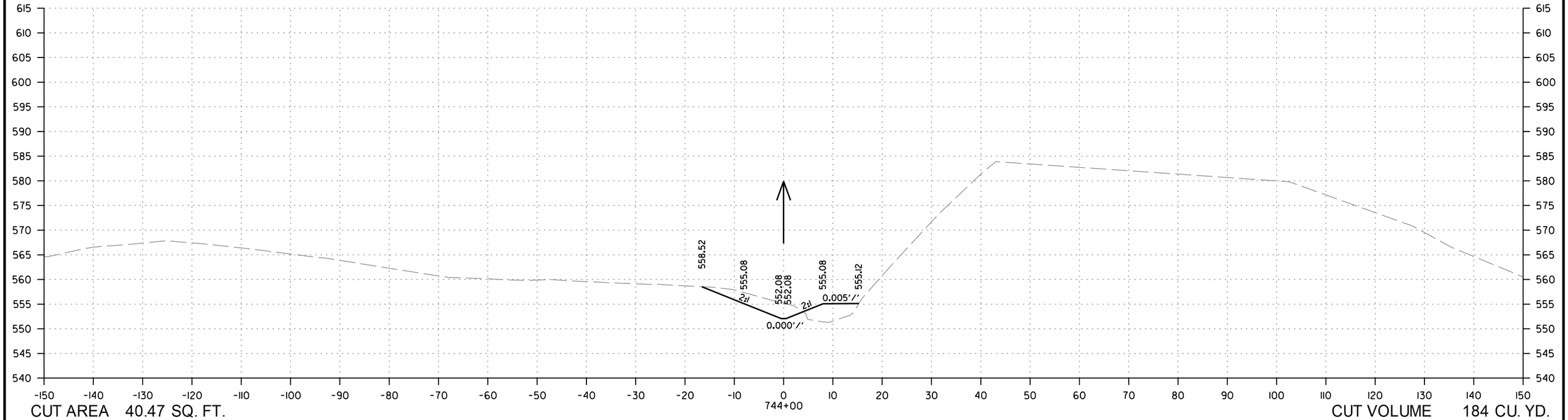
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	43	50
		CROSS SECTIONS				



CUT AREA 19.9 SQ. FT.
FILL AREA 26.84 SQ. FT.

CUT VOLUME 112 CU. YD.
FILL VOLUME 104 CU. YD.



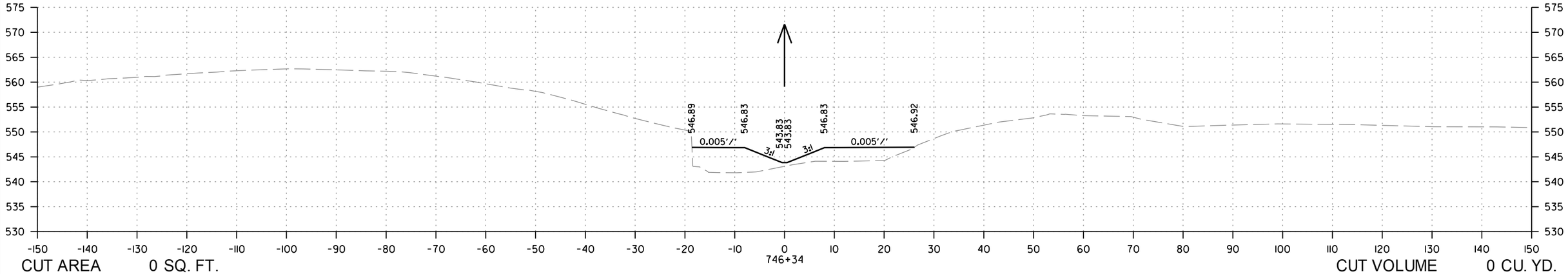
CUT AREA 40.47 SQ. FT.
FILL AREA 29.49 SQ. FT.

CUT VOLUME 184 CU. YD.
FILL VOLUME 134 CU. YD.

SITE C-3
CROSS SECTION STA. 744+00 TO STA. 745+00

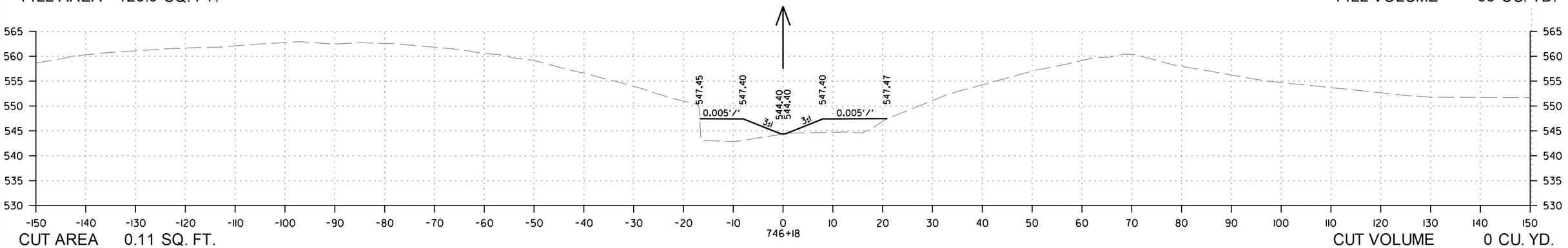
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	44	50
		CROSS SECTIONS				



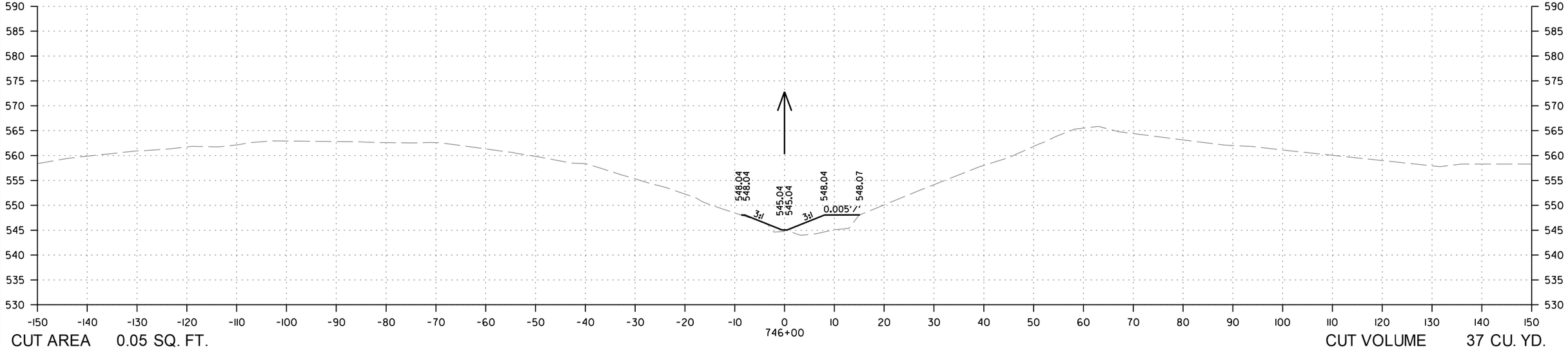
CUT AREA 0 SQ. FT.
FILL AREA 125.9 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 65 CU. YD.



CUT AREA 0.11 SQ. FT.
FILL AREA 93.65 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 43 CU. YD.



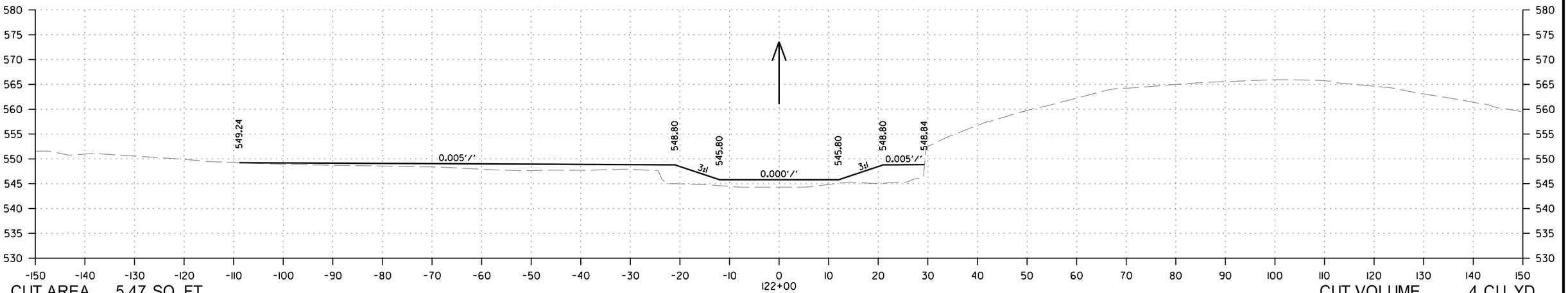
CUT AREA 0.05 SQ. FT.
FILL AREA 36.59 SQ. FT.

CUT VOLUME 37 CU. YD.
FILL VOLUME 117 CU. YD.

SITE C-3
CROSS SECTION STA. 746+00 TO STA. 746+34

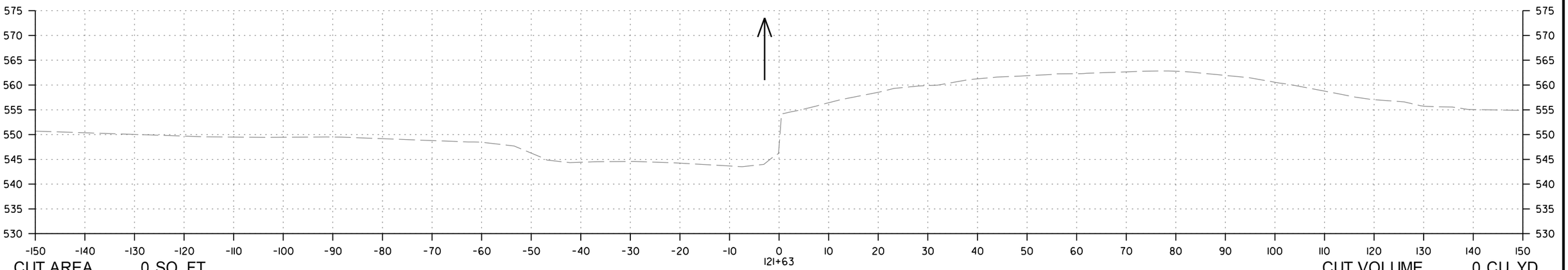
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	45	50
		CROSS SECTIONS				



CUT AREA 5.47 SQ. FT.
FILL AREA 177.7 SQ. FT.

CUT VOLUME 4 CU. YD.
FILL VOLUME 241 CU. YD.



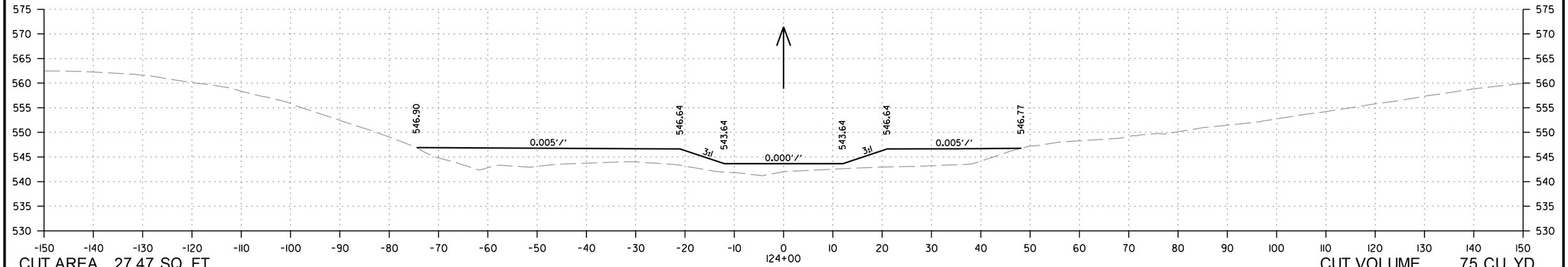
CUT AREA 0 SQ. FT.
FILL AREA 173.9 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE C -2
CROSS SECTION STA. 121+63 TO STA. 122+00

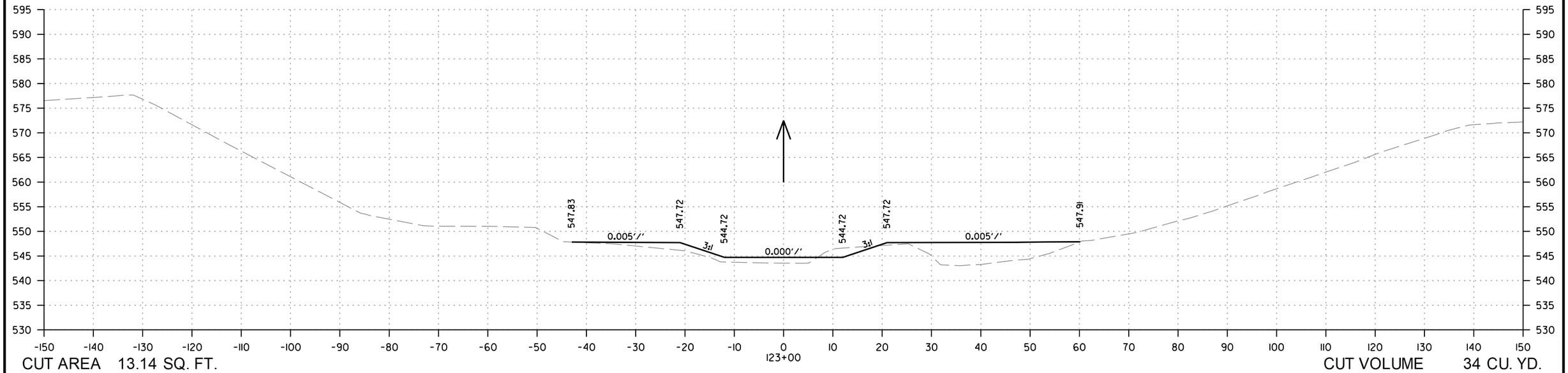
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	46	50
		CROSS SECTIONS				



CUT AREA 27.47 SQ. FT.
FILL AREA 147.2 SQ. FT.

CUT VOLUME 75 CU. YD.
FILL VOLUME 563 CU. YD.



CUT AREA 13.14 SQ. FT.
FILL AREA 156.6 SQ. FT.

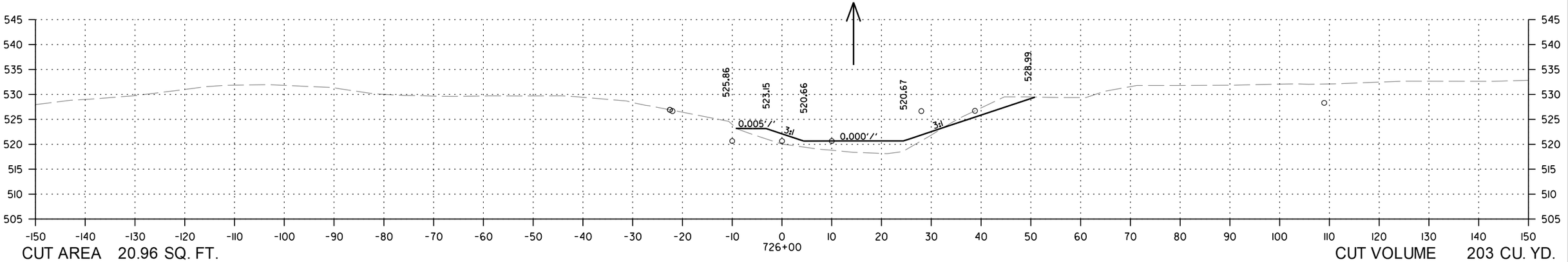
CUT VOLUME 34 CU. YD.
FILL VOLUME 619 CU. YD.

SITE C-2

CROSS SECTION STA. 123+00 TO STA. 124+00

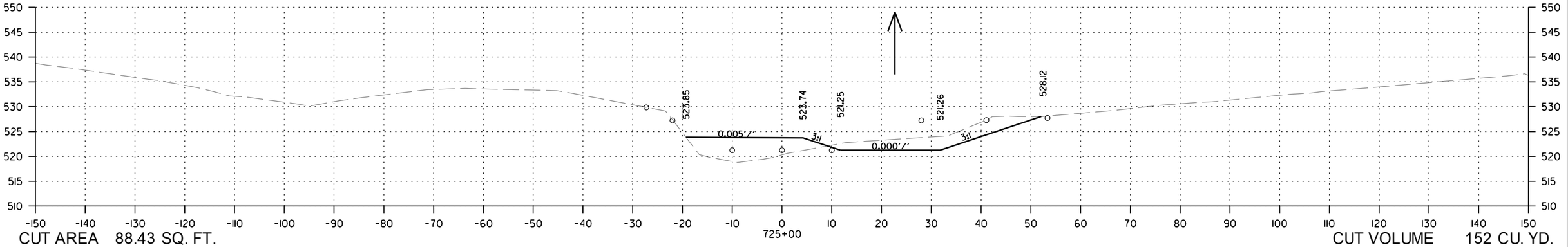
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	47	50
		CROSS SECTIONS				



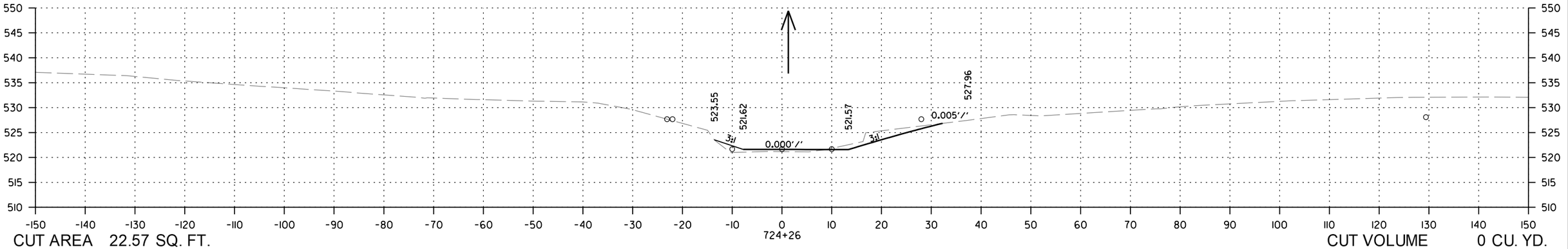
CUT AREA 20.96 SQ. FT.
FILL AREA 70.33 SQ. FT.

CUT VOLUME 203 CU. YD.
FILL VOLUME 307 CU. YD.



CUT AREA 88.43 SQ. FT.
FILL AREA 95.65 SQ. FT.

CUT VOLUME 152 CU. YD.
FILL VOLUME 147 CU. YD.



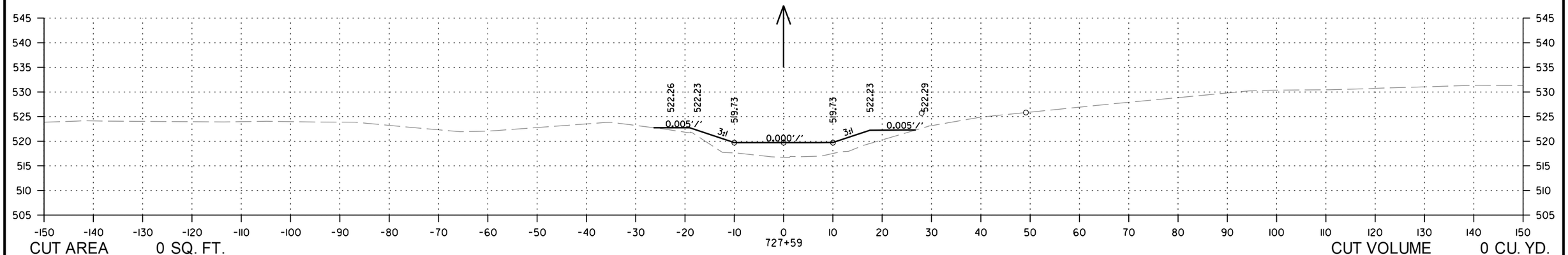
CUT AREA 22.57 SQ. FT.
FILL AREA 11.74 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SITE D-1
CROSS SECTION STA. 724+26 TO STA. 726+00

rb43088 6/19/2024
R061855.DGN

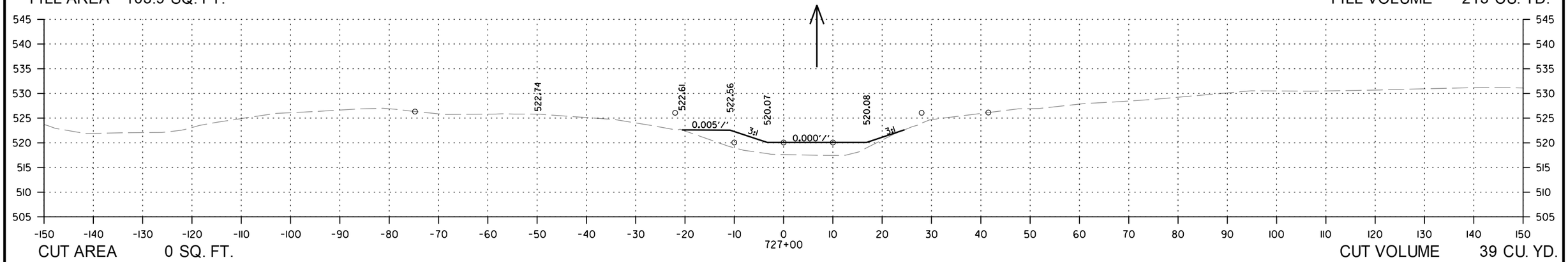
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	48	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 103.9 SQ. FT.

727+59

CUT VOLUME 0 CU. YD.
FILL VOLUME 213 CU. YD.



CUT AREA 0 SQ. FT.
FILL AREA 90.73 SQ. FT.

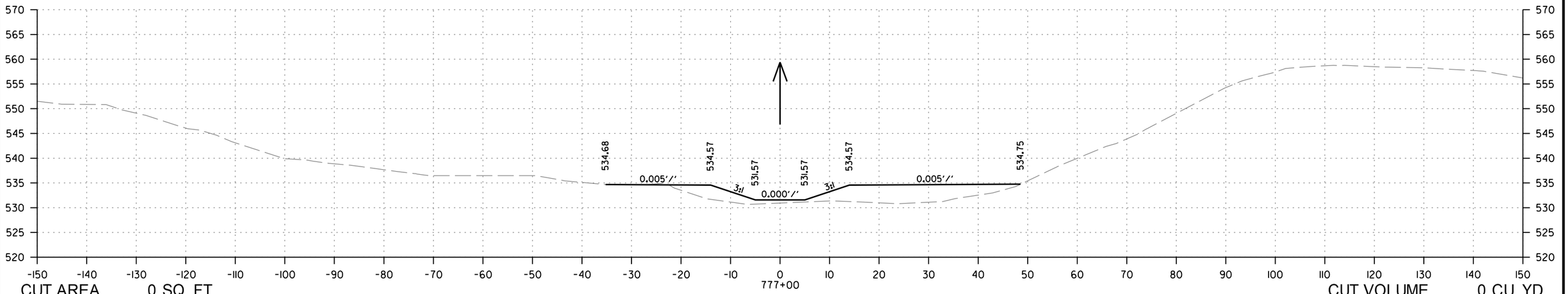
727+00

CUT VOLUME 39 CU. YD.
FILL VOLUME 298 CU. YD.

SITE D-1
CROSS SECTION STA. 727+00 TO STA. 727+59

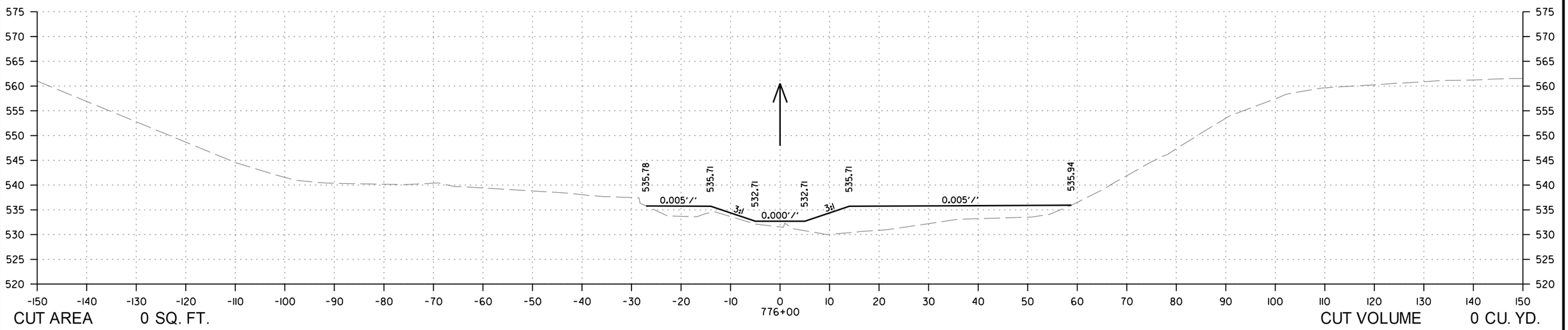
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	49	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 152.4 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 682 CU. YD.



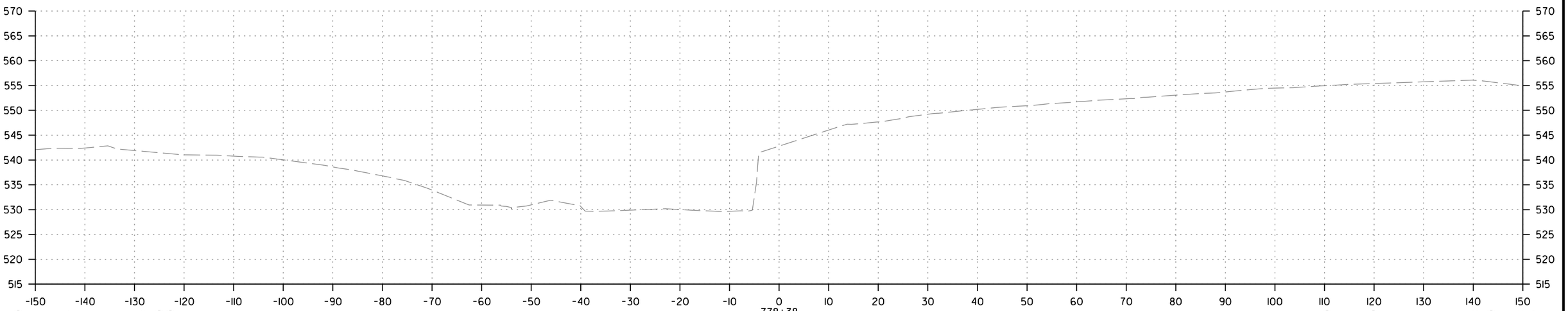
CUT AREA 0 SQ. FT.
FILL AREA 215.7 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 399 CU. YD.

SITES D-2 & D-3
CROSS SECTION STA. 776+00 TO STA. 777+00

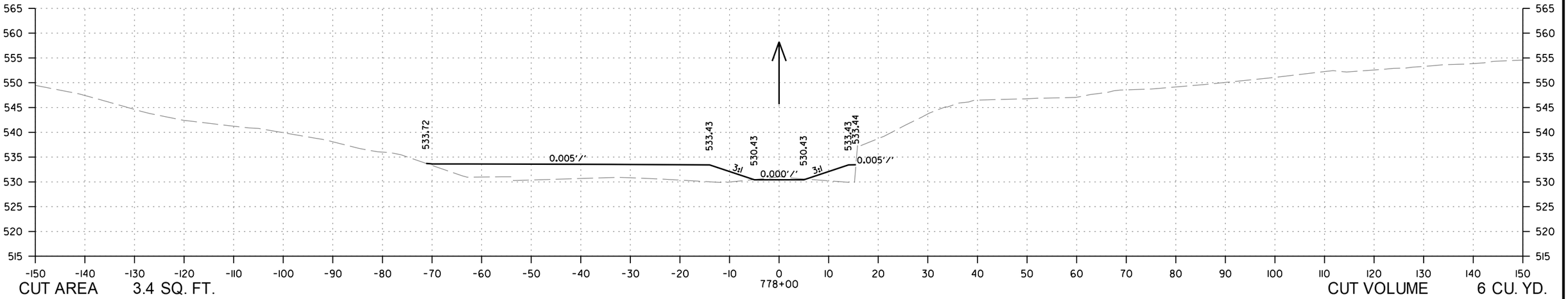
rb43088 6/19/2024
R061855.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	50	50
		CROSS SECTIONS				



CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 2 CU. YD.
FILL VOLUME 133 CU. YD.

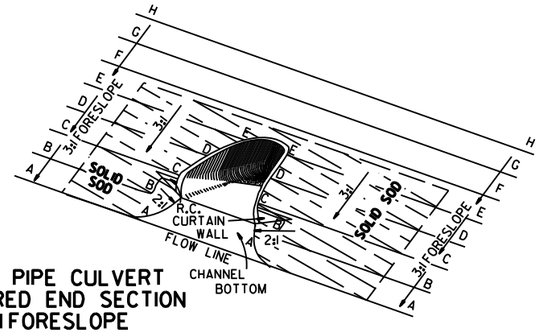


CUT AREA 3.4 SQ. FT.
FILL AREA 189.3 SQ. FT.

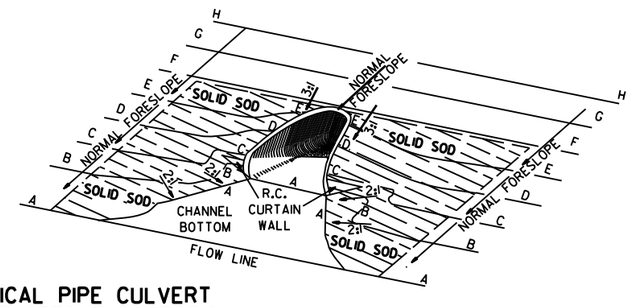
CUT VOLUME 6 CU. YD.
FILL VOLUME 633 CU. YD.

SITES D-2 & D-3
CROSS SECTION STA. 778+00 TO STA. 778+38

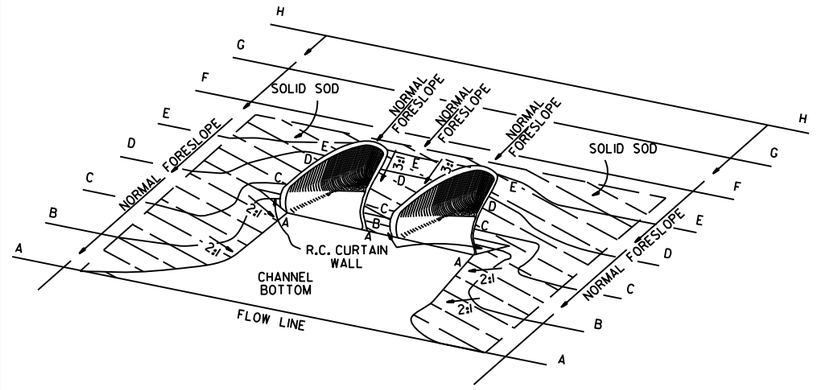
r043088 6/19/2024
R061855.DGN



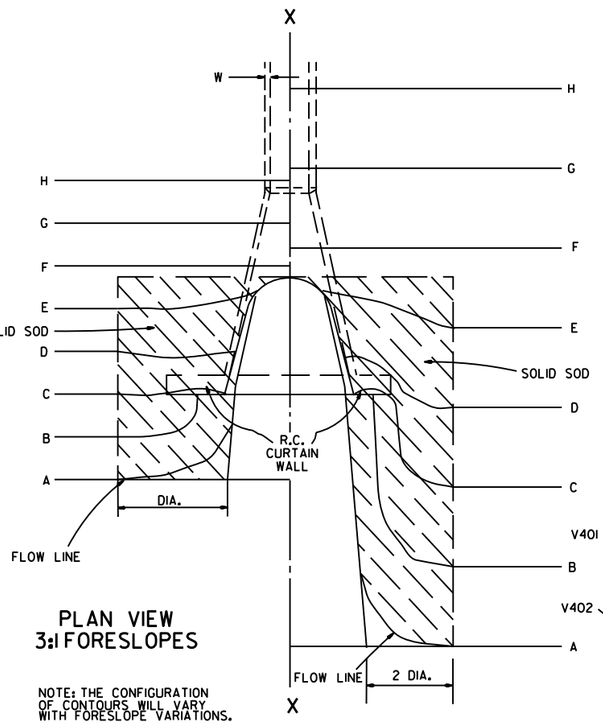
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES



PLAN VIEW
3:1 FORESLOPES

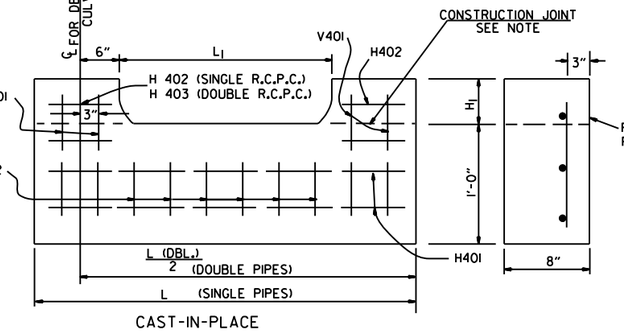
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

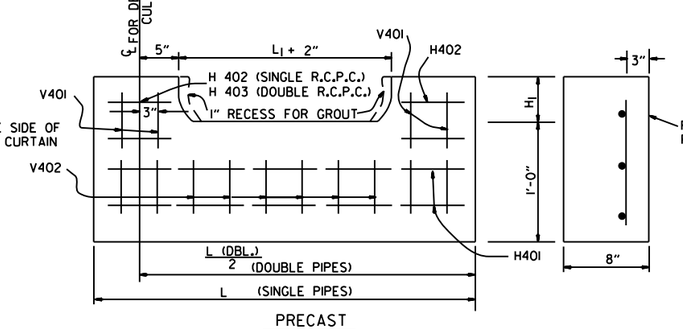
PIPE DIA.	H_1	L_1	L	L (DBL.) / 2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	1'-11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

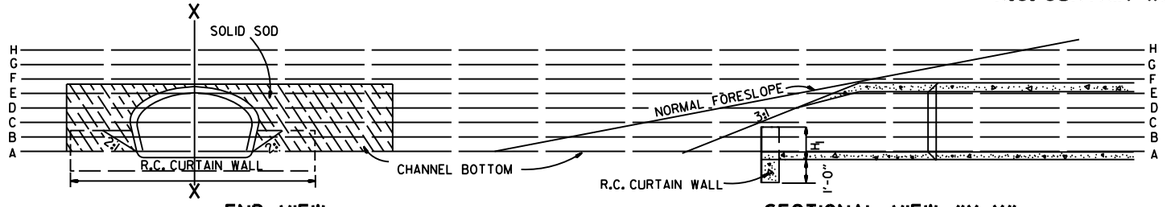
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS



END VIEW

SECTIONAL VIEW "X-X"

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1

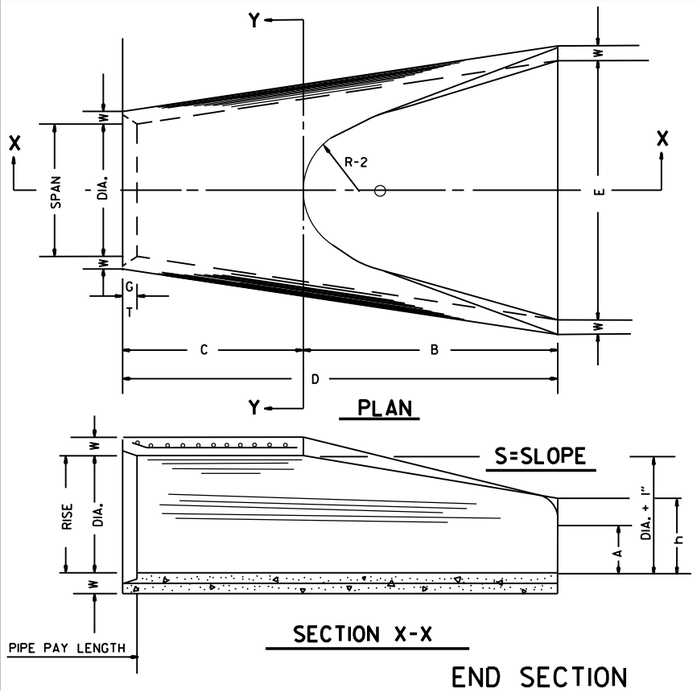
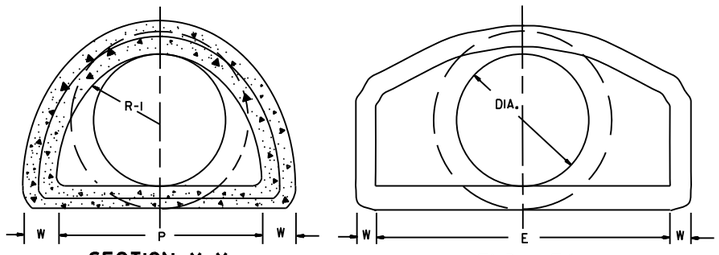


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33 3/16"	16 15/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 13/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 15/16"	24"	5"	13250	4'-6"

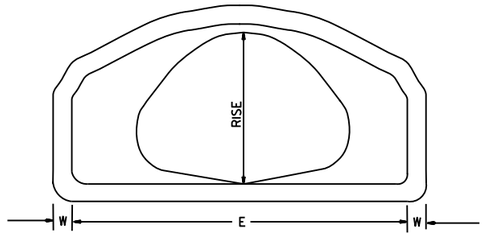


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

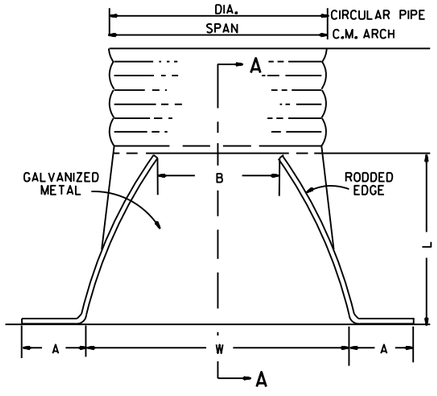
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 11/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½:1
36	43¾	44	26⅜	27	4"	10½"	4'-0"	2'-11½"	6'-1½"	6'-6"	54 5/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

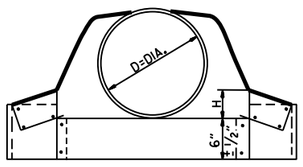
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



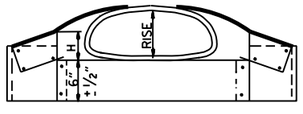
END VIEW
CONCRETE ARCH PIPE

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS





CIRCULAR PIPE



C.M. ARCH PIPE

CIRCULAR PIPE

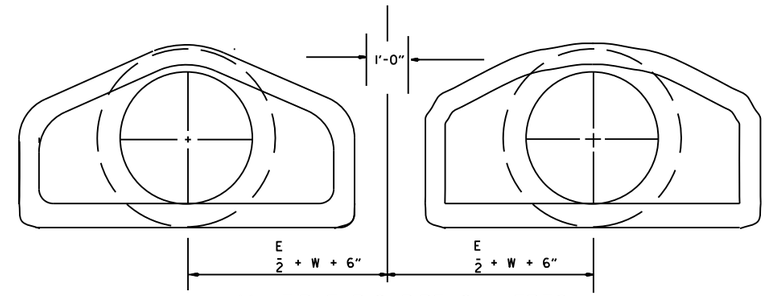
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

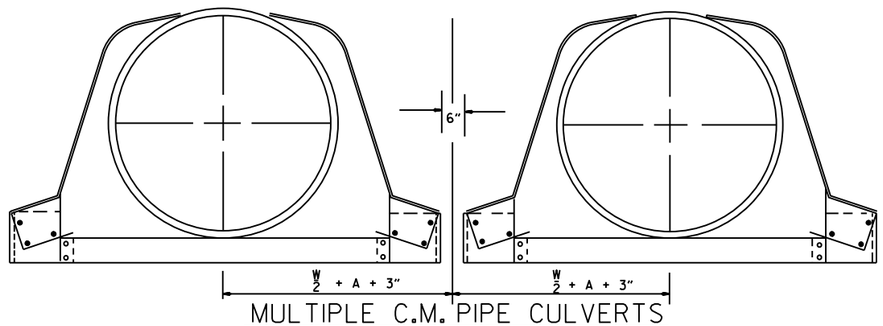
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

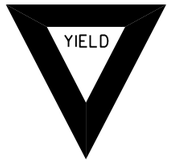
FLARED END SECTION

STANDARD DRAWING FES-2

R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

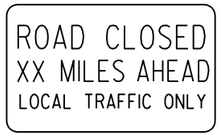
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

48"X30"

R11-3A



60"X30"

R11-4

60"X30"

W21-5a

STD. 36"X36"
FWY. 48"X48"

W1-1

STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

W1-3

STD. 48"X48"

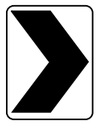
W1-4

STD. 48"X48"

W1-6

STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

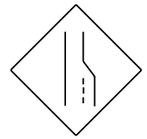
W3-1

STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

R56-1

STD. 18"X18"

W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

STD. 36"X36"
FWY. 48"X48"

G20-1

60"X24"

G20-2

48"X24"

OM-3L OM-3R

12"X36"

M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

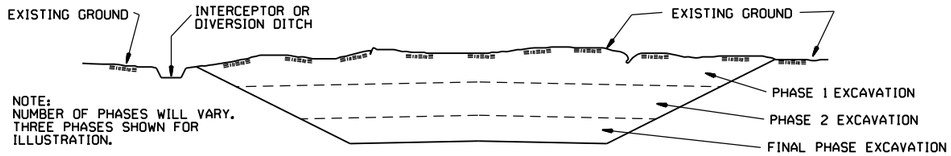
STANDARD DRAWING TC-1

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



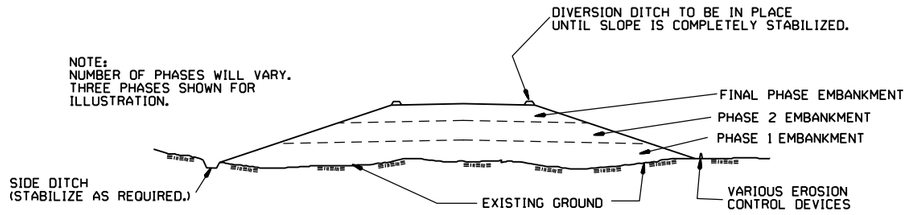
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

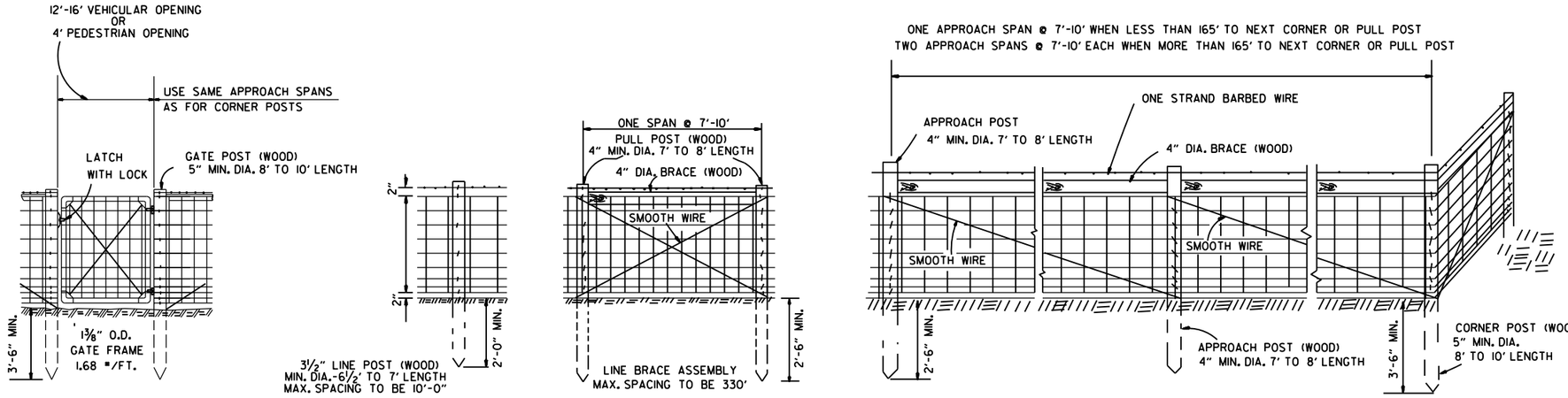
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

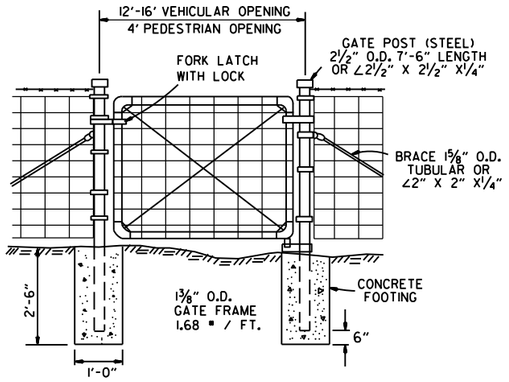
TEMPORARY EROSION CONTROL DEVICES

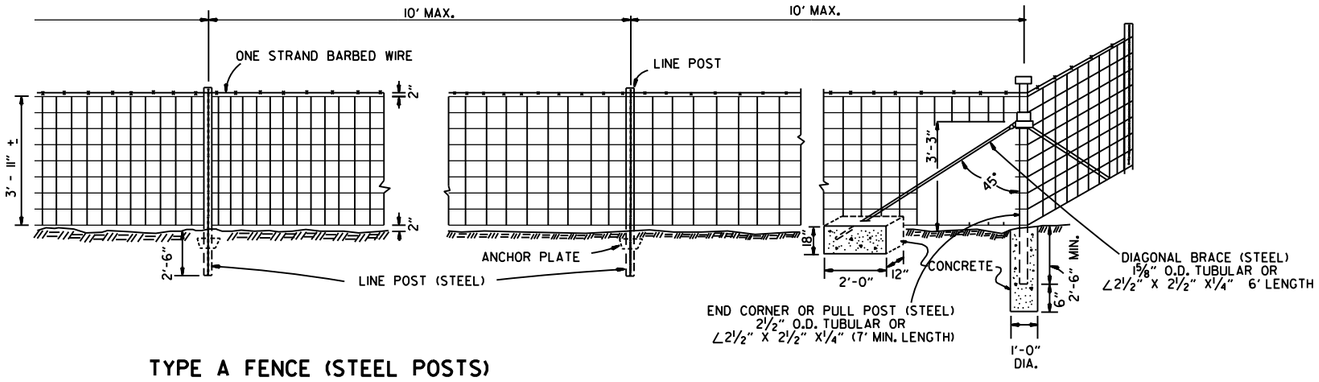
STANDARD DRAWING TEC-3



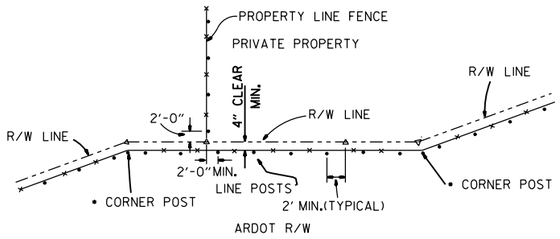
NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)





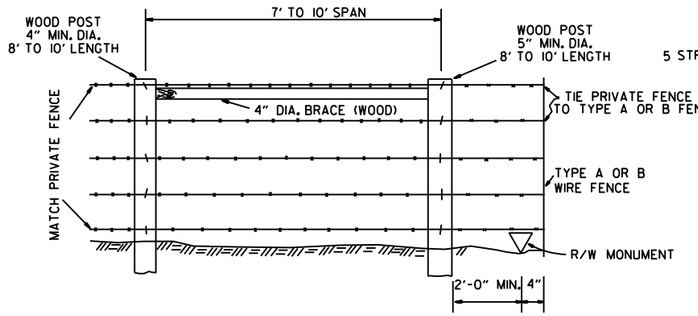
TYPE A FENCE (STEEL POSTS)



•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

△ - R/W MONUMENTS
• - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION

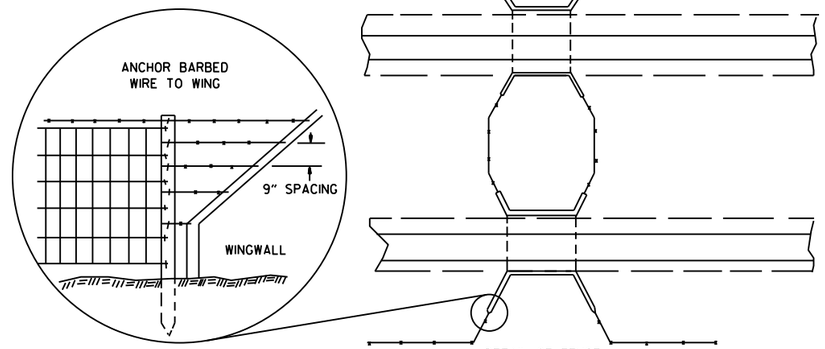


WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

PRIVATE FENCE TERMINAL INSTALLATION

SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE



DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES	
	AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE A AND B

STANDARD DRAWING WF-1